



**Save Our Wildlife Foundation Inc.**  
INTRODUCTION TO POSSUM  
CARE AND RESCUE

Version 1.4



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# INTRODUCTION

This course is designed to give you an introduction to the care of Common Brushtail Possums 250 grams or over and Common Ringtail Possums 110 grams or over. Possums under that weight are required to go to an experienced or advanced carer. This course will introduce you to:

- The identification of native species
- Rescue, restraint, and assessment of native species
- Common diseases and injuries
- Housing requirements
- Feeding
- And different methods of release

If you ever have questions during your time with Save Our Wildlife Foundation Inc. (SOWFI) please contact your assigned district co-ordinator(s) or if unavailable a species specialist.

## BEFORE BECOMING A CARER

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It is a requirement of Save Our Wildlife Foundation Inc. members that before possums are placed in their care all possum carers are:

- To complete an interview
- Be a current financial member of Save Our Wildlife Foundation Inc.
- Have attended a 'Introduction to Possum Care and Rescue' course
- And your 'buddy' has checked that you have the necessary equipment required to provide appropriate care to possums, including all cages and aviaries.

Please remember that our primary precedence is the care and welfare of the animals that we are entrusted with; their lives and future of the species might also rely on it. All recommendations and assistance supplied via a district co-ordinator, experienced carer, advanced carer, or species specialist should not be seen as a query about your abilities. Anybody determined to be neglectful or not supplying suitable care or no longer have the essential facilities can be refused animals, until the issues are appropriately addressed.

## WHAT AM I COMMITTING TO?

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From the beginning, carers are to be aware of the end result you are aiming for; **an independent possum that has the skills to survive in the wild.** Carers should also be aware of the commitment to:

**At least two possums** - Possums should be raised in groups of two or more if possible. Being exposed to others they will learn to communicate with other possums and learn their language and behaviour from each other. Ringtails are born as twins or triplets and live in multigenerational nests so, being on their own can cause them a lot of anxiety and misery, however if a Brushtail was to be released individually it could be done so without detrimental effects.

**Months of care** - Possums can be in care as long as 6-8 months. When you take on an animal, please consider how long it will be with you and whether you have holiday plans. You will need to organise a carer to take them while you are away, so please check before committing. Your co-ordinator may be able to help with this. Releasing a possum before they are ready because you are going away is not a good reason.

**Daily native flora collection** - When feeding your possum consider what they will eat in the wild. They must be fed a variety of natives, especially the new shoots of gum trees (tips). This means finding big bunches of fresh leaf tips and natives to provide to them fresh every day.

**Cost of care** - Caring for possums is not free. Brushtails especially will eat some fruit and vegetables while in care, as well as native leaves and flowers. Milk and supplements can be bought through SOWFI's wholesaler. Carers are responsible for obtaining their equipment: baskets, heat mats, syringes, teats, pouches, towels, cages, and aviaries. A district co-ordinator and senior member of the team can direct you to places to purchase this equipment.

Carers should also begin caring with the understanding that:

**Not all possums survive** - While we would like to think we can save all the possums that come into our care, they do not always survive. It is impossible to always identify if a possum is sick or has internal injuries. Be prepared that some may die, all you can do is be alert to signs that something may be wrong and seek vet treatment.

**Hard decisions may need to be made** - If a sick or injured animal is unlikely to recover to a releasable state or is suffering, you may have to make the decision to end its pain and let it go with the knowledge that the decision is the most kind for the animal. Most vets will make this call for you, but some are not as familiar with possums and may ask your opinion. Information in these notes will help prepare you for some cases but if you are faced with this decision and are not sure, you should call out for advice and support. Call your district co-ordinator, an experienced carer, advanced carer, or species specialist. Do not put injured adults through long invasive treatment. To adults we are predators. Living with us for any length of time causes great stress which can cause heart failure and death.

**Not all possums are joeys** - You will not always receive small joeys into care. Frequently juvenile or adult possums will come into care and rehabilitation, with the intent being to allow recovery until they are well enough again to be released. Adult brushtails can grow to over 4kg and ringtails to 1kg. They may be wild, aggressive, and scared and unless very sick will be difficult to capture and handle.

**Some possums may not be releasable** - Some possums may recover from injuries but not be well enough to survive in the wild, for example losing a tail or limb. Save Our Wildlife Foundation Inc. does not support keeping non-releasable animals. If you decide to keep them, you should consider the quality of life the animal will have and be aware that possums can live for more than 10 years in captivity. If you believe a possum is not releasable talk to a district co-ordinator about the options.

**Permits are required** - All species of possum in South Australia are protected. You must apply for your Wildlife Carer Permit from Department of Environment and Water (DEW).

**Be independent of us** - If you are raising joeys, be aware of how their mother would behave. A joey will be with its mother 24/7 for the first few months and increasingly, like all teenagers, will want to explore the tree and their world on their own. We need to reduce contact with them at this time, about 250g for a Brushtail and 110g for a Ringtail. It is unfair to have them dependent on us when they are released.

**Small joeys need 24/7 care** - When you have done the experienced carers course for smaller joeys you can take on young joeys who need 24/7 attention, starting with milk feeds every 4 hours. As they grow, feeds reduce until they are weaned off their milk.

## RESCUE AND ANIMAL RECORDS

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In SOWFI, our primary method of data collection is through webforms found in the volunteers section of our website, as this was the easiest way to collect data while ensuring privacy for all members.

Below is a step-by-step guide (that is also available for download on the website) to record a rescue.

Please note that the rescue form contains many fields. Only the first 2 are compulsory (the date/time of the report, and the animal group), however, the more information that can be captured, the more useful the report will be. It is understood that not all the fields will be relevant to every rescue, and sometimes not all information will be known.

- The date/time of report can either be typed or completed by pressing the calendar icon and selecting the date/time (Approximate time is fine)
- The animal group can be selected from the drop-down list
- Please enter any information you have about the person or organisation that requested assistance. This will make it easier if they need to be contacted later about release
- If the circumstances were unusual or noteworthy, please enter a brief description
- Start typing your name (or the name of the person who did the rescue if filling in the form on their behalf). Select your name from the search results that appear
- Select the status of the rescue as of at the time of completing the form
- Enter the street and suburb of the rescue (or where the report was made if no rescue occurred) This is particularly important for rescues where an animal comes into care. If a rescue took place, please continue, and enter the animal details. If no rescue occurred, scroll down, and submit the form
- If you do enter details of an animal, the species field is compulsory, but all known details should be entered. Start by typing the species common name, and select from the search results
- Choose the most relevant reason that the animal needed rescue (to the best of your knowledge)
- Complete the life stage of the animal at the time they were rescued. Enter the gender (if this has been ascertained) and select the current status of the animal in the outcome field. This can be updated later if it changes
- If you have chosen to name the animal, enter their name and press submit

You will then receive a success message once the form is submitted. Provided a valid email address is held for the member conducting the rescue, an email will be sent within a few minutes, confirming details of rescue, and providing links to update animal details or transfer the animal to a new carer.

## MEASUREMENTS

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Body measurements are taken of the head, foot, and tail to determine the age of the animal and thus its growth stage indicating what it should be fed as well as housing requirements. Regular weigh-ins provide a check that young animals are growing correctly - animals are often weighed better in a bowl and pouch on kitchen scales – remember to tier-off/weigh the pouch before you disturb your animal for accurate measurements.

**Head Length:** Best measured with vernier calipers, from the tip of the nose to the back of the skull. Head length is generally the most accurate indicator of an animal's age.

**Foot Length:** From the back of the heel to the end of the longest toe, excluding the nail. Measured with calipers, a ruler or tape measure.

**Tail Length:** Underside from the base to tip, excluding any hair protruding from the tip. Measured with a ruler or tape measure.

## ZOONOSIS

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Carers need to consider their own health when caring for wildlife and take the necessary precautions. Zoonotic diseases are diseases that are transferred from animals to humans. Diseases and illnesses such as thrush, or Leptospirosis, as well as other bacteria and parasites can be transferred to carers.

Always wash your hands after handling wildlife.

Preventative measures that wildlife carers can take against zoonotic diseases.

- Tetanus vaccinations performed every 5 years for wildlife carers and rescuers. If you are unsure if you are at risk, or how often you should receive a tetanus booster, please consult your GP.
- Seek prompt medical attention for wounds if inflicted by animals. Inform your doctor that you handle wildlife so they can assess the risk of infection and complete an incident report.
- Do not smoke around animals at all or eat while cleaning cages and preparing animal food.
- Wash your hand frequently when handling animals.
- If you feel that the animal in your care may be carrying a zoonotic disease, such as Chlamydia, take the animal to the vet for assessment.

Recommendations for cleaning enclosures.

- Work from young to adult, and healthy to diseased animals that are in care.
- Wear gloves to minimize contact with urine and faeces while cleaning cages.
- Roll newspaper to contain urine, faeces, and uneaten food.
- Remove urine, faeces, and uneaten food from the cage daily.
- Wipe the cage tray with a disinfectant suitable against bacteria and viruses - e.g. F10

Note all cages need to be cleaned thoroughly before a new set of residents may move in. This means taking the cages outside and spraying them with F10 and leaving for 15 minutes (not exceeding 30 minutes), then scrub and wash off with hose or pressure cleaner. Dilution rate of F10 is 10mLs per 1L of water.

## EQUIPMENT

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When rescuing possums, you will need the following items:

- Towel(s), material net, leather gloves or welding gloves, mobile phone (to record found/location)
- Lockable carry basket, pillowcases, torch, saline wash, pouches (if for younger joeys)
- Heat source (wheat bag, portable heat disc), scales and SOWFI Hi-vis safety vest

When caring for possums as a guide you will need the following items before you start:

- Possum milk (Wombaroo >0.8), impact colostrum supplement, Wombaroo high protein powder
- Spark conc. liquid (electrolytes), syringes (1mL, 5mL, 10mL), teats/catheters/trimmed wing infusion
- Lockable carry baskets, small and large cages, **aviary (at least 1.8m L X 1.5m W X 1.8m H)**
- Nesting/release boxes, Canesten hygiene laundry rinse, sensitive laundry detergent (e.g. Biozet)
- F10 veterinary disinfectant (spray bottle), Milton concentration hygiene solution tablets/liquid
- Kitchen scales, heat source, pouches (inside liners and outside liners), towels, pillowcases

## COMMON BRUSHTAIL POSSUM

The main brushtail possum found in South Australia is the Common Brushtail Possum (*Trichosurus vulpecula*). Common brushtails are the most abundant species of possums in Australia, found in all states and territories. The brushtail is normally varying shades of grey in colour with a white, yellow, or golden belly. They commonly have a black tail, white patches on the back of their ears and a bright pink nose. They have rabbit like ears and an elongated face when compared with the Common Ringtail Possum. An adult Common Brushtail Possum should weigh between 1.5-4KG with males often reaching a larger size than females.

## BEHAVIOUR AND REPRODUCTION

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The Common Brushtail Possum is nocturnal, coming out at night to forage for native leaves, flowers, grasses, buds, and fruit. Brushtails may also eat insects, eggs, and meat. In an urban environment, they will eat a wide range of foods depending on what they find. They live in hollows and tree trunks, however in city environments where these natural habitats are sparse, they will commonly live in buildings, roof tops and possum/bird boxes.

Reproduction occurs all year around in brushtails, with females giving birth to single young after only 16 to 18 days gestation, on very rare occasions they can have twins. The joey will spend the first 4-5 months in the mother's pouch before beginning to venture out to begin eating solids. Once the joey is too big for the pouch, it will either back-ride or follow the mother around. It is possible for a female to have an older joey as well as a young pinkie in the pouch. Male brushtails have been seen carrying back-riding young.

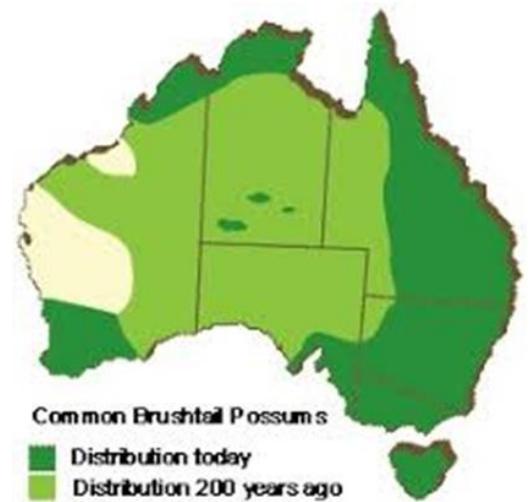
## DISTRUBUTION AND HABITAT

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The Common Brushtail Possum is perhaps the most widespread marsupial of Australia. It is found throughout the eastern and northern parts of the continent, as well as some western regions, Tasmania, and a number of offshore islands, such as Kangaroo Island and Barrow Island.

The brushtail can be found in a variety of habitats, such as forests, semi-arid areas and even cultivated or urban areas. It is mostly a forest inhabiting species; however, it is also found in treeless areas.

It is the Australian marsupial most often seen by city dwellers, as it is one of few that thrive in cities and a wide range of natural and human-modified environments. Around human habitations, brushtails are inventive and determined foragers with a liking for fruit trees, vegetable gardens, and kitchen raids.



## THREATS

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Common Brushtail Possums will come to the ground to move from one spot to another and eat a wider range of foods when compared with other possum species. Common threats to brushtail possums include:

- Rat or snail bait poisoning (can be second-hand poisoning, where the animal has eaten a bait victim)
- Domestic animal attacks
- Foxes and wild birds
- Motor vehicle trauma
- Electrocutation
- Disease (Exudative dermatitis)
- Human interference (e.g. deforestation, trapping)
- And orphaning

# BRUSHTAIL IDENTIFICATION

**Male 'Jack' Genitalia**



Image from: Malcolm Whyte

**Female 'Jill' Genitalia**



Image from: facebook.com

# GROWTH PICTURES

**Common Brushtail Possum - Pinkie**



Image from: Natalie Logan

**Common Brushtail Possum - Baby**



Image from: Andrew Boyce

**Common Brushtail Possum - Juvenile**



Image from: Leonie Blewett

**Common Brushtail Possum - Sub-Adult**



Image from: Katrina Baker

# COMMON RINGTAIL POSSUM

Common Ringtail Possums (*Pseudocheirus peregrinus*) are the second most common possum species in South Australia. They are found mostly along the east of Australia as well as South Australia.

The ringtail is normally varying shades of grey, brown, or black in colour with a lighter belly. They commonly have long tails with a white tip, and small round ears with a short face. An adult Common Ringtail Possum should weigh between 0.7-1.1KG, with males often reaching a larger size than females.

## BEHAVIOUR AND REPRODUCTION

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The Common Ringtail Possum is nocturnal, coming out at night to forage for native leaves and flowers. Unlike brushtails, ringtails have an extremely sensitive digestive system and eat a smaller range of foods. Ringtails live in dreys, that they build with sticks and leaves that they carry in their tails, however in urban environments where these natural habitats are sparse, they will commonly live in buildings and possum/bird boxes like brushtails. Ringtails can live in small groups of one male and one or more females.

Most reproduction occurs from March to November, however young can be born outside of this time. As with brushtails, the joeys are born after a short gestation period of 20-26 days and spend the first few months of life living in the pouch. It is common that ringtails will carry more than one joey at a time most times it is twins or triplets. Male ringtails have been known to help care for young, carrying back-riders while the females are feeding. Females can breed in the winter of the year following their birth. Most will begin breeding when they are 14 months old. Males will mature a little earlier.

## DISTRIBUTION AND HABITAT

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Ringtail possums are found in east coast Australian forests and urban gardens. They prefer dense foliage to build a drey in and keep hidden.

They are arboreal and common in bush land, along creek-lines, in parks and backyards. They can be found in many areas as their main food is Eucalyptus which is widely spread across the East coast of Australia.

They build their own spherical nests, called dreys, which makes it possible for them to live in many places as they do not need to rely on tree hollows. A drey is made from sticks and bark with leaf litter used to make it comfortable. Ringtail possums will have more than one drey in their home range and each drey will have more than one entrance/exit to make an escape easy if a predator approaches from one opening.



Image from: Queensland Department of Natural Resources and Mines

# RINGTAIL IDENTIFICATION

**Male 'Jack' Genitalia**



Image from: Bridget Jane

**Female 'Jill' Genitalia**



Image from: Lisa Depalo

# GROWTH PICTURES

**Common Ringtail Possum - Pinkie**



Image from: Marian MacLucas

**Common Ringtail Possum - Baby**



Image from: Jane Kelly

**Common Ringtail Possum - Juvenile**



Image from: Helen Goodhew

**Common Ringtail Possum - Sub-Adult**



Image from: Amanda Reader

# RESCUE, RESTRAINT & ASSESSMENT

## MYOPATHY

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Possums can suffer from a stress induced condition called myopathy. Myopathy occurs while possums are under stress, they develop a build-up of lactic acid which lowers the pH of the body and causes oxygen deprivation, muscle and organ damage resulting in organ failure.

Common signs of myopathy are respiratory distress, stiff muscles, muscle tremors, general weakness, lethargy, and sudden death. Long term effects can include renal failure, compartment syndrome, liver damage, heart failure, brain damage and paralysis.

Adult and juvenile possums are at risk of suffering from myopathy and care must be taken when dealing with these animals. Stressful situations for possums that could trigger myopathy include trapping, capturing, handling and inappropriate housing. Care needs to be taken to avoid trapping possums unless necessary, trapped possum should never be left in the trap for any period. While capturing or rescuing a possum, it ought to be achieved as quickly as possible. The animal should not be chased around or stressed further. Handling of possums should be kept to a minimum unless necessary. Housing should be dark and quiet. The possums should not be exposed to loud sounds, pets, or children.

There is no treatment to reverse myopathy, only to help slow further progression. Death may not occur suddenly and may take several weeks or months. If you suspect an animal may be suffering myopathy, contact your district co-ordinator and seek medical treatment. A vet may give sedatives, corticosteroids, diuretics, selenium, vitamin E, oxygen, glucose, and fluids to a possum suspected to be suffering capture myopathy, however this is not a cure.



Image from: [myloview.com](http://myloview.com)

## OBSERVATIONS

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When you arrive at a location for a rescue it is critical to look at a few things before engaging in the rescue of a possum. First, look at the environmental factors of the region.

- Has the possum been found on the ground close to power lines?
- Are there lots of dogs in the area?
- Is it near a busy road?
- Is there development or renovation work that may have displaced the possum?

Have trees recently been cut down? Ask people in the area if they put baits out for rats or snails. Next, watch the possum briefly before rescuing it.

- Where was it found?
- Can it move?
- Are there any obvious injuries to the animal?

If there are obvious injuries, it is often best to capture the animal and take it straight to a vet clinic for assessment rather than taking it to another carer or home with you. Possums are exceptionally good at hiding the degree of their injuries, so despite the fact it may not look serious it may need an appropriate veterinary assessment to confirm the extent of injuries. A healthy adult possum does not require rescue unless it is displaced or trapped.

When rescuing a possum, make note of the region it was found. On the off chance that it is a joey is this a suitable area for it be released when older? Even if it does not appear to be suitable, record the address and keep it on file.

## RESCUE AND RESTRAINT

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**Image from: Casey Poolman  
Husbandry Guide for Ringtail Possum**

Most injured or orphaned possums are found on the ground. You can catch older possums by using a net or throwing a towel over them and scooping them up. Where the possum is still feisty be careful to wear gloves as they will bite and claw at you. Carefully grab the possum by placing one hand around the back of the neck ensuring not to strangle, just tight enough to restrict too much movement and the other at the base of the tail (if no spinal injuries). If a spinal injury is suspected, leave the possum in the position it has chosen to be in and lift into carrier without changing its position (if possible). In this case a towel or a piece of cardboard could be of use.

Young possums can be picked up by turning pouch inside out over your hand, picking up the joey with the pouch, and turning the pouch back in the right way with the possum inside it. Incredibly, young joeys should be able to be picked up and placed in a pouch with an external heat source. If no heat source is available, they should be placed down your top as close to your skin as possible to keep them warm and transported to an

advanced carer ASAP if 98g or smaller for brushtails and 60g or smaller for ringtails. If the joey is 98g or larger for a brushtail and 60g or larger for a ringtail, then that can be transported to an experienced carer. If a brushtail possum is 250g or greater it can go to a trained carer, if the ringtail is 110g and greater it can also go to a trained carer if there is not underlying issues that may require an experienced or advanced carer.

Do not lift a possum from under its front legs like a baby. Always have their full bodyweight supported by one hand under their rear and another holding them upright but slightly curled around the chest cavity.

When rescuing possums, do not place yourself in danger by climbing onto or on roofs or up trees. Enlist the property owner to help retrieve animals stuck in precarious places. If in a public place such as roadside, ensure you are safe before attempting rescue. Ensure you are wearing your Hi-vis vest. Call your district coordinator to seek approval in enlisting the help of the Police 131 444 for traffic control or SAPN/MFS/CFS/SES to assist if possum is near power lines.

Once you have the possum secured in a carrier, if it is obviously in need of vet treatment, take it straight to a vet clinic. Adult possums can be hard to physically assess, and it can be traumatic for the animals. Vet clinics will often anaesthetise adult possums before assessing to lower any risks to both humans and possums. If the possum has no obvious injuries, it can be taken home and assessed when settled.

Ensure you make notes of where the rescue took place and the circumstances of any injuries, it may be required if the possum can be released back into the area after short term treatment.

When transporting animals ensure that:

- The carrier is properly secured
- The car is properly temperature controlled so that the animal is warm to reduce stress, but not overheating or cold
- Ensure the carrier is covered over to make it dark for the possum
- Do not have the radio or CD's playing in the car, it must be quiet to reduce stress

## PHYSICAL ASSESSMENT

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Once you return home, place the carrier in a quiet and dark place while you prepare to examine the possum. This will give it time to settle from the trip. Ensure you have everything handy you need to assess the animal, such as gloves, towels, and scales to weigh them. As a general rule wait a minimum of 30 minutes before you return to assess the possum. If it is a young possum, provide it with an appropriate level of warmth as per the feeding charts. Adults and juveniles should also be provided with heat to help treat and prevent shock UNLESS they're suffering from head trauma. Possums suffering from head trauma should not be provided heat as it can make them worse.

Joeys are easy to handle and examine. They should be checked for any injuries or deformities. Joeys can suffer from cat or dog attack wounds. Even a tiny scratch from a cat can cause death in a possum 3-4 days after they come into care. If a possum has had any suspected contact with a dog or cat, contact your district co-ordinator immediately to discuss. Dehydration occurs very quickly in young possums, and it is common for them to come into care dehydrated. This can be assessed by pinching the skin over the back of their shoulders and letting it go. If the skin stays together (tents) the animal is suffering from dehydration. If the skin returns to normal position immediately, it is probably well hydrated. A district co-ordinator, vet or experienced carer can show you how to assess for dehydration.



Image from: Casey Poolman  
Husbandry Guide for Ringtail Possum



Image from: Jacob Klop

Joeys may also be abandoned by their mother if there is a physical deformity affecting them. They may have been born that way however when the joey starts exiting the pouch, the mother will abandon them if it's clear they're unable to function as a normal possum would.

To examine a juvenile or adult possum, wrap it in a towel and keep its face covered (unless you are looking at its face). Uncover each area as you examine it. You may need to hold the back of its head at the base of the neck while you are examining the possum. For adults, which can be a reasonable size, it can be helpful if two people examine the possum, one to hold and one to look. Do an initial first aid check.

Start from one end and work down the body. If you find a serious injury such as a broken leg or paralysed hind limbs that will require vet treatment, put the animal away and schedule a vet appointment. There is no point stressing the possum further if it needs to be euthanized or will need to be checked again by a vet. If the animal is clear after the initial check, then proceed to the secondary first aid check.

Consider or record the following during the assessment:

Weight (grams/kg), sex (male/female), age (pinkie/baby/juvenile/adult), species (brushtail/ringtail), dehydration, attitude (aggressive or calm), pupil reaction to light, breathing effort (gentle and consistent or erratic and/or laboured?), abnormal bleeding (from nose, mouth, or ears), Are any limbs, ears, or tail missing?

- Is the possum able to move or is it conscious but frozen?
- Is it able to control its head and limbs?
- Does it have any tail curl and its paws grip when you put your finger against them?
- Is there any bleeding from elsewhere on its body and if so, how much and is it fresh?
- Is it covered in sores, pus in the eyes, lots of fur missing?

## VETS

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A good relationship with vets and vet staff is vital to all wildlife. There will be situations that will make us angry or sad but regardless of how we feel we must be polite and respectful to all vet staff. There have been cases where carers have lost their temper or argued with vets or vet nurses and those vets are still unavailable, not just to one species but to all species. Be aware that your behaviour over one animal will impact on not only your future rescues but on all the wildlife in South Australia.

Your district co-ordinator will be able to direct you to the vets that they work most closely with in your area. These vets have a special interest in wildlife and usually do not charge us. Under the law and their code of practice vets are required to take in any animal in trouble. However, as we are not paying customers, the animal becomes theirs to care for. All welfare decisions made by the vet are law. In addition, some vets will tell us that they know nothing about wildlife and do not want to treat wildlife. In these circumstances, it is best to respect what they are telling us and take our possum elsewhere.

Injured animals should always have pain relief to aid healing and reduce stress by reducing pain. Possums can take Metacam or similar for cats and dogs which is prescribed by a vet and Infant Panadol (1month-1year) in doses as advised by a species specialist. These are inadequate however for injuries like breaks or burns which require a vet to prescribe opiates and antibiotics as we would need in the same situation. Leaving an animal in pain because you cannot get it to a vet is animal cruelty. Call a district co-ordinator for help if you are not able to take the possum yourself. Ringtails should only be given short courses of Enrofloxacin (Baytril) as an antibiotic where appropriate. There is some scientific evidence to support giving Baytril orally. To aid in the prevention of caecal stasis ringtails should be 'papped' once a week for two weeks after any antibiotic or thrush treatment.

# COMMON DISEASES & INJURIES

## EXUDATIVE DERMATITIS

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**Species affected:** Brushtails

**Description and Symptoms:** Exudative dermatitis is characterized by a loss of fur on the body of a possum, commonly around the face or feet sometimes with scabbing or oozing wounds

**Cause(s):** May be caused by stress often from:

- Lack of food
- Lack of appropriate housing
- Bullying or harassment from other possums
- Environmental stresses

Although there can often be an underlying disease process involved, which can result in reoccurring ED once released.

**Treatment:** It can be treated, however once the possum is released it is likely to re-occur, therefore euthanasia is recommended to avoid contamination of the wild population.

**Prognosis:** If more than 20% of the possums' body is affected, often euthanasia is the kindest option. It can be treated, however once the possum is released it is likely to reoccur.

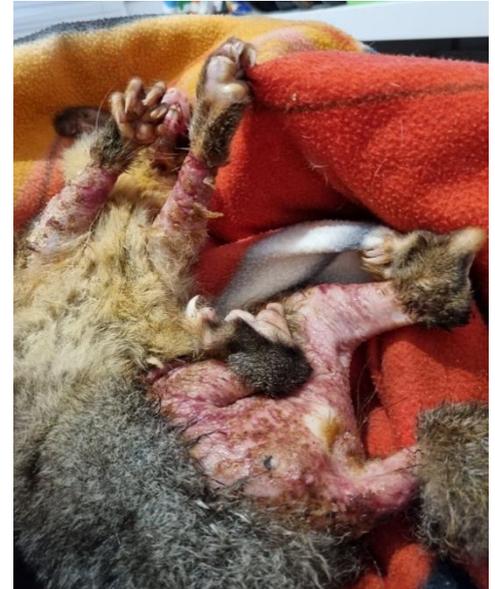


Image from: Cheryl Brentson

## SPINAL INJURIES

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**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** An obvious spinal abnormality, inability to move or use legs, inability to grip with feet or tail.

**Cause(s):** Most causes are related to vehicle trauma, large falls, or dog attacks

**Treatment:** Vet assessment is needed to determine the extent and cause of the problem.

**Prognosis:** Depends on severity of the injury. However, euthanasia is usually recommended.

*(Refer to Appendix 1 - Diseases and Injuries for picture)*

## SPINAL CURVATURE

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**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** An obvious spinal abnormality, abnormal gait, poor co-ordination, signs of muscle wastage in rear legs (determined by a veterinarian).

**Cause(s):** Trauma to spine, inappropriate housing, spinal disease, possible birth-defect

**Treatment:** Vet assessment is needed to determine the extent of the problem.

**Prognosis:** Poor, euthanasia is usually recommended.

*(Refer to Appendix 1 - Diseases and Injuries for picture)*

## BROKEN BONES

---

**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** Swelling and bruising at site of fracture, unable to use limb or weight bare, bone protruding through skin.

**Cause(s):** Trauma such as dog attacks, hit by car and large falls

**Treatment:** Vet assessment is needed to determine the extent of injury.

**Prognosis:** Dependent upon which bone is broken and how well it can be realigned. However, euthanasia is usually recommended.

*(Refer to Appendix 1 - Diseases and Injuries for picture)*

## HEAD TRAUMA

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**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** Head tilt, uneven sized pupils, lethargic, convulsions, circling, blood around face, ears, or nose.

**Cause(s):** A blow to the head often from being hit by a car or falling from a height

**Treatment:** Vet assessment is needed to determine the extent of injuries. The possum may be suffering from other injuries as well as head trauma such as internal organ damage.

**Prognosis:** Mild cases will resolve given time if there are no other complicating factors, severe cases often result in permanent damage or extended suffering before death, so euthanasia is advised.

*(Refer to Appendix 1 - Diseases and Injuries for picture)*

## ELECTROCUTION

---

**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** Burns on the animals' body, singed fur, blackened feet, swollen limbs.

**Cause(s):** Possums using powerlines to travel

**Treatment:** Vet assessment is required immediately to determine the extent of injuries.

**Prognosis:** Depends on the extent of the injury and the severity of the electrocution as it can cause damage to the heart muscle.

## DOMESTIC ANIMAL ATTACK

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**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** Saliva or blood on matted hair, scratch marks or puncture wounds.

**Cause(s):** Possums living in urban environments

**Treatment:** Vet assessment may be needed to determine the extent of the injuries; all victims of dog or cat attacks will require antibiotics within the 12-hour to 24-hour period of the attack occurring.

**Prognosis:** Guarded, severe damage may be present to internal organs. Prompt antibiotic treatment within 12-hours of the attack occurring will improve the outcome in most cases.

*(Refer to Appendix 1 - Diseases and Injuries for picture)*

## BIRD ATTACKS

---

**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** Injury to the face, tail or body, birds can also amputate the tail of possums.

**Cause(s):** Orphaned joeys may be attacked by birds and large parrots may amputate the tail of larger possums

**Treatment:** Vet assessment is needed to determine the extent of injuries.

**Prognosis:** Good, if the possum is treated suitably in a reasonable time frame; possums with large amounts of their tail amputated will require euthanasia, if unsure contact district co-ordinator or species specialist.

*(Refer to Appendix 1 - Diseases and Injuries for picture)*

## BURNS

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**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** Burns to the feet and ears, singed fur, blisters, redness of skin, leathery appearance to dead skin.

**Cause(s):** Possums walking on hot surfaces (e.g. roofs, roads etc.), possums getting caught in bushfires, possums using powerlines to travel

**Treatment:** Vet assessment is needed to determine the extent of injuries.

**Prognosis:** Depends on severity of the burns and the age of the possum if treatment is an option, or if euthanasia is the kinder option.

*(Refer to Appendix 2 - Diseases and Injuries for picture)*

## CORNEAL ULCERATION

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**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** Eye is shut, tearing and painful. Front of the eye may appear blue or white.

**Cause(s):** Dehydration, injury by foreign object (branches in aviary or the wild from predation). Linear ulcers are caused by eyelids not being able to shut.

**Treatment:** If caused by dehydration rehydration should commence; trauma factors should be assessed by a vet for treatment options.

**Prognosis:** If corneal ulcers are promptly identified and treated, then there is a good chance of vision returning. More severe damage to the internal structure of the eye will result in permanent vision loss, thus euthanasia is recommended.

*(Refer to Appendix 2 - Diseases and Injuries for picture)*

## POISONING

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**Species affected:** Brushtails more so than Ringtails

**Description and Symptoms:** Bleeding from the mouth or cloaca, hunched up, lethargic, pale mucus membranes.

**Cause(s):** Humans misusing rodenticide, metaldehyde and pindone baits

**Treatment:** Vet assessment is required immediately. Vitamin K may be given however is often unsuccessful

**Prognosis:** Poor, most animals suffering from poisoning will need to be humanely euthanised.

## OLD AGE

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**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** Poor body condition, worn down teeth, loss of eyesight.

**Cause(s):** Aging

**Treatment:** There is no treatment for old age.

**Prognosis:** Poor, animals that are losing body condition due to old age should be humanely euthanized to prevent further suffering.

*(Refer to Appendix 2 - Diseases and Injuries for picture)*

## PRESENCE OF OIL ON FUR

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**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** Greasy, dark material on fur, coat, or paws, smell of motor oil and possible symptoms of poisoning if ingested.

**Cause(s):** Usually from sleeping under car bonnets

**Treatment:** Comb talcum powder through fur to absorb the oil or wash out with baby shampoo - if ingestion of oil is suspected veterinary assistance will be required.

**Prognosis:** Good, provided the animal has not ingested large amounts of oil.

*(Refer to Appendix 2 - Diseases and Injuries for picture)*

## CYSTITIS

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**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** Small and frequent urination, urine staining around cloaca, poor growth, poor appetite.

**Cause(s):** Chronic dehydration that may lead to kidney disease and thus an inability to excrete normal wastes, poor toileting technique where the bladder is not totally emptied

**Treatment:** Vet assessment is needed to determine the extent of the problem.

**Prognosis:** Depends on severity, whether or not euthanasia is the kinder option.

## MALNUTRITION

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**Species affected:** Brushtails and Ringtails

**Description and Symptoms:** >10% of body weight loss, thin or loss of fur, muscle on the back and tail are small, possible lethargy.

**Cause(s):** Lack of protein in their diet

**Treatment:** Wombaroo impact colostrum supplement and Wombaroo high protein powder to increase protein levels. Oxbow Critical care may also be used.

**Prognosis:** Depends on severity. However, animals may be euthanised later due to malnutrition complications such as caecal stasis.

*(Refer to Appendix 2 - Diseases and Injuries for picture)*

## CAECAI STASIS

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**Species affected:** Ringtails

**Description and Symptoms:** Soft doughy abdomen, loss of coat condition, increased hunger, or thirst, hunched up.

**Cause(s):** May be caused by:

- Incorrect diet (fruit diet only or a diet high in sugar causes growth of incorrect gut bacteria)
- Failure to feed leaf by 100g
- Misuse of antibiotics

**Treatment:** Change diet (add more foliage), add protein (Wombaroo high protein supplement or impact colostrum supplement), Transfaunation or poo milkshake can be given, use motility modifiers such as Metomide to promote gut movement (Cisapride may be used but this drug needs to be compounded), subcutaneous fluids may be necessary and Oxbow Critical care may be given to provide fibre.

**Prognosis:** Often by the time it is recognised treatment is unrewarding as it is too late, humane euthanasia is recommended.



Image from: Anne Fowler

## DIARRHOEA

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**Species affected:** Brushtails and Ringtails - more frequent in joeys

**Description and Symptoms:** Frequent and loose bowel movements, temporary faecal incontinence, soiled pouches.

**Cause(s):** Can be caused by change in diet, imbalance in gut flora, wrong formula given to joeys, ringtails given fruit or other high sugar products. In joeys poor carer hygiene can be a cause; hands not washed between species or from possum to possum, syringes not disinfected, etc.

**Treatment:** Depends on species and cause, please contact a district co-ordinator or species specialist

**Prognosis:** Good if animal can be returned to normal and healthy. If diarrhoea continues untreated it will end in death.

**Note:** Bentonite clay is a natural clay with a fine, soft texture that forms a paste when mixed with water. We use pre-made bentonite clay mixed in with a possum milk formula (to disguise the taste) in the treatment of diarrhoea. To make up the clay add enough pre-boiled, warm water to 1 Wombaroo scoop (13grams) of bentonite clay to create a toothpaste consistency.

### How to Make Poo Milkshake (or Transfaunation)

- Grind up a fresh poo from the healthy donor possum
- Mix the poo with the volume of milk to be fed
- Leave the poo with the milk for 10 minutes
- Strain the lumps through a tea-strainer or sieve and serve

Transfaunation is used in the aid of diarrhoea prevention/treatment in ringtails and is noted not to work in the prevention and/or treatment of diarrhoea in brushtails.

# HOUSING FOR POSSUMS

## SMALL CAGE

In a small cage you should provide low branches of varying sizes. So that the possums can practice climbing. A small box should also be provided so the young possums learn to sleep in boxes.

**Reminder: newspaper is required in the tray not on top of the cage bars.**

**Ringtails:** 110 grams to 199 grams

**Brushtails:** 250 grams to 299 grams

Minimum dimensions of small (flight) cage; 61cm W x 40.5cm L x 43cm H

Please note this cage does not have foliage but is for the use of set-up reference purposes



Image from: Bridget Jane

## MEDIUM/LARGE CAGE



Image from: Amanda Reader

Medium/large cages can either be inside or out. Possums should be introduced to varying size branches and ropes as well as a medium box or drey (for ringtails).

SOWFI members are provided with a box to fit inside their medium cage (one box per medium cage). These are not release boxes. You may order your boxes on the members page of the website.

**Reminder: newspaper is required in the tray not on top of the cage bars.**

**Ringtails:** 200 grams to 299 grams

**Brushtails:** 300 grams to 499 grams

Minimum dimensions of medium/large cage; 53cm W x 81cm L x 160cm H

## AVIARY

The aviary is the final stage before release. Possums should have branches of varying sizes, branches that swing and ropes at different heights within the aviary so they can build up muscle strength. If they haven't already, they should be introduced to the box they are going to be released in to get familiar with it. They need at least 4 to 6 weeks in their release box before release.

Order your release box on the member page of the website with as much notice as possible to ensure one is available and allow for collection time.

**Ringtails:** 300 grams to 450 grams

**Brushtails:** 500 grams to 850 grams

Minimum dimensions of aviary; 1.8m L x 1.5m W x 1.8m H with a paved/wired floor.



Image from: Natalie Logan

## CRÈCHES

Young possums should always be in a crèche with another possum where possible. Being exposed to other possums provides them with company and teaches them important things about possum language to prepare them for release. Brushtails can be in a crèche of 2 partner sex doesn't matter, if no partner is found for the Brushtail it may be released as an individual without detrimental effects. Ringtails can be kept in a crèche of up to 4 possums.

There should be a maximum weight difference of 50 grams for brushtails and 30 grams for ringtails between the largest and smallest possum in the crèche. There should never be more males than females in a crèche to prevent fighting in ringtails. If you have questions regarding partnering possums, contact a district co-ordinator or species specialist who will be able to provide you with advice.



Image from: Vanessa Kiermeier

## HOT DAYS (>32°C)

It is best to site an aviary under some shade. On hot days, the aviaries can get a lot hotter than a possum would otherwise experience if sleeping in a tree hollow. Sometimes possums come into care from heat exhaustion. Our captive possums are no different.

There are several strategies to keep the aviaries/possum's cooler in hot weather:

- Spray/wet the area around the aviary
- Place plastic bottles with frozen water next to release boxes
- Place frozen 4L ice-cream containers on top of the box with wet towels over
- Hang wet towels or an old quilt wet down on the aviary to shade nesting boxes

You can also put something on the aviary roof to keep the heat off such as:

- Brush fencing material

- Sacks of straw, bales of hay or even grow creepers over the roof

On days over 32 degrees you should place the possums inside your house to sleep for the day and put them outside again late afternoon or early evening when it is cooler. Make a cover for the hole using cardboard and duct tape, remembering to have breathing holes to allow airflow. An alternative to bringing your possums inside is installing misters in your aviary, this allows you a little more wriggle room, but you must be able to monitor a thermometer attached to the box.

Do not be tempted to bring your possum in every day over 30 degrees or they will not experience the different weather conditions and they may not cope with hot weather when they are released. Only bring them inside in conditions of extreme heat.

## FEEDING

All equipment used for preparing food and feeding young joeys should be sterilised properly. This guide is for feeding brushtails 250 grams or greater and ringtails 110 grams or greater. Possums under that size are required to be in care with an experienced or advanced carer.

## DEHYDRATION

**Description and Symptoms:** Pinch skin over shoulder blades and release to look for skin tenting. 5% dehydration: dull eyes, dry mouth, skin tent <1second. 8% dehydration: skin tent for 1-2seconds. 10% dehydration: skin tent >2seconds, eyes closed, cool, lethargic.

**Cause(s):** May be caused by:

- Trauma
- Blood loss
- Infection
- Orphaning with resulting starvation

**Treatment:** Calculate 10% of body weight (0.1 of X = YmLs, YmLs of electrolyte is given over a 24hour period) this is separate to milk. Day 1: 10% body weight, Day 2 and 3: 7.5% body weight.

**Prognosis:** Failure to correct dehydration upon arrival can lead to kidney failure and failure to thrive in the coming weeks.

### Dehydration Calculations

Calculate 10% of bodyweight: e.g. 10% of 250g is 25g (or mL). So 25mLs of rehydration fluid is given. Create fluid plan address 10% on day 1 divided into 3 feeds for example 25mLs is given over three feeds of 8.3mLs each time (8AM, 2PM and 10PM).

Day 2 and 3; 7.5% of bodyweight: e.g. 8.3mLs given at 8AM and 8PM. If the possum could not take the 8.3mLs by mouth a feed, then the frequency is increased.

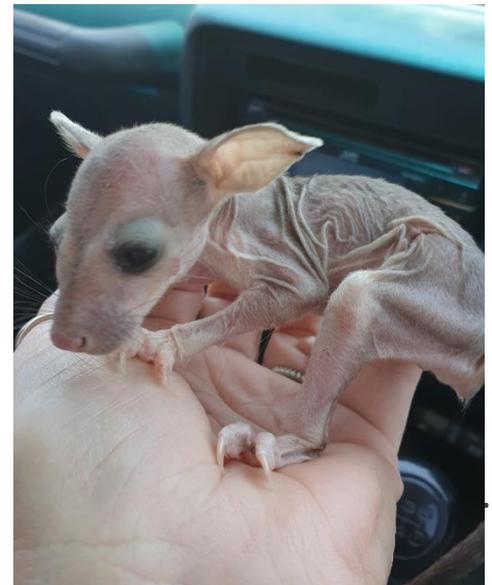


Image from: Cheryl Brentson

## REHYDRATION

Rehydration is key when it comes to feeding possums, especially young joeys. Possums that are dehydrated will not feed well. Dehydration occurs very quickly in young joeys and can be fatal. Most possums will come into care with some degree of dehydration. Where possible, the first feed given should always be electrolytes. Spark conc. liquid can be purchased from most pet stores and SOWFI's wholesale supplier Lyppards or a homemade solution of **1 teaspoon sugar, 1 teaspoon salt to 1 cup pre-boiled water** may also be used.

Make up the electrolyte mix with boiled water that is cooled as per the instructions on the bottle. Dehydrated possums of any age tolerate electrolytes well. Often if they are dehydrated, they will take several mLs of electrolytes in the first feed. Wait for 2-3 hours and then offer more electrolytes. As the possum rehydrates, they will take less, and less electrolyte mix per feed. For some possums it may only take one feed before they refuse electrolytes. For others it may take several feeds before they are feeling rehydrated. You will notice when the possum isn't interested in the electrolytes anymore. They may take a few mLs and then refuse more. At this stage you can switch them onto a milk substitute.



Image from: [petbarn.com](http://petbarn.com)

Electrolytes should still be offered between feeds for several days if the possum came in to care dehydrated. If possums are severely dehydrated contact a district co-ordinator, species specialist, or vet about subcutaneous fluids ASAP. You should suspect severe dehydration if the possum will not take electrolytes at all, or if it is lethargic and poorly responsive. A history suggesting the possum has been out in the weather for 24 hours or longer or being found on the ground should also raise your suspicion.

## POSSUM MILK FORMULA

There are a few different milk formulas available for the purpose of raising possums. Possums should not be fed any other milk or milk replacers as they have extremely sensitive digestive systems (they cannot drink cow's milk). All milk should be made with preboiled water, stored in the fridge, and thrown out after 24 hours. Premade milk can be frozen for a few weeks.

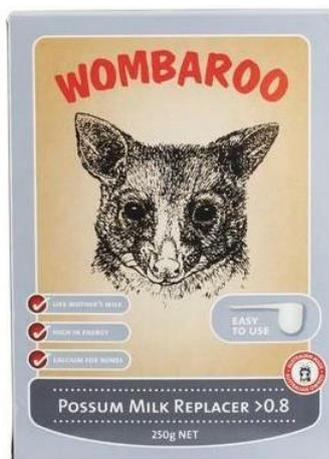


Image from: [petchemist.com](http://petchemist.com)

Milk substitutes suitable for possums include:

- Biolac M100
- Wombaroo <0.8 possum milk
- Wombaroo >0.8 possum milk

Carers often have different preferences as to what they use. For ringtails under 60 grams and brushtails under 130 grams only Biolac M100 or Wombaroo <0.8 possum milk should be used. Possums this size need to be with an experienced or advanced carer. If you have questions about which milk replacer to use, discuss the pros and cons of each with a district co-ordinator or species specialist.

# IMPACT COLOSTRUM SUPPLEMENT

Impact colostrum supplement should be added to *ALL milk formulas* made for possums. It has been shown to decrease the instances of diarrhoea in young joeys and can aid in treatment of intestinal thrush.

All containers of impact colostrum come with a little scoop inside. One level scoop of impact colostrum should be added per 50mLs of milk.

**If a young possum is suffering from diarrhoea, the impact can be increased to help combat this.**

Colostrum contains high levels of immunoglobulins. These are proteins that protect against harmful micro-organisms such as bacteria and viruses. Orphans that don't receive adequate colostrum have a weakened immune system and increased risk of disease and mortality.



Image from: [petchemist.com](http://petchemist.com)

## HOW TO FEED



Image from: [Amanda Reader](#)

Young possums can be fed several different ways and often each possum will have their own preferences. The first few feeds for younger possums should be given via a syringe. Larger possums may lick the electrolytes or milk from the tip of the syringe. Small joeys may need a teat or catheter of a trimmed IV cannula placed on the end of the syringe. Once the possums are stable, they can be taught to lap out of a small bowl. Milk should be fed warm, but not so warm it will burn the possum. Test the temperature of the milk on your own skin before giving it to the possum. Possums will refuse cold milk, and it may cause thrush or other problems. Milk that has been

warmed up and not used should be disposed of. Possums can be held in a feeding blanket to prevent milk from spilling on to the possum into the pouch. The joey should be held firmly. Some young possums find it more comforting to have their head/eyes covered and others don't. It may take you several feeds to figure out how your possum likes to be fed. They are all individuals.

Any milk that is spilt on the possum should be thoroughly cleaned after every feed with a damp cooled tissue, unscented baby wipe or cloth. Milk left on the fur dries very crustily and can cause fur loss and/or milk burn. Contact a district co-ordinator or species specialist if you are having difficulty feeding a possum. A district co-ordinator or species specialist may be able to give you some suggestions or, by looking at the possum, may notice an injury or be able to give you ideas on improving your feeding technique. Some possums coming into care may need an experienced carer for the first 24-hours, in order to settle and teach them the ways of captive life and feeding from a syringe or bowl.



Image from: [Nicole Michael](#)

## TOILETING

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Young joeys cannot toilet themselves. If left alone they cannot void even if their bladder or bowel becomes so distended it becomes damaged. In the pouch, a mother possum will lick the baby's cloacal region to stimulate the possum to void in a controlled way thus keeping the pouch clean.

Carers must take the place of the mother! Use unscented baby wipes, tissues, cotton wool or make up pads to toilet a possum after feeding. Make sure to dip the tissues or make up pads in water and let cool before using them otherwise you will burn your possum. If possums will not feed, you should try toileting before feeding as some possums won't feed if they have a full bladder or bowel. Older possums are able to self-toilet, but it is always better to toilet a possum unnecessarily than risk bladder or bowel damage by assuming it is self-toileting.

Very young joeys faeces are the consistency of toothpaste and as they grow will start to form pellets. Ringtails sometimes produce white powdery urine. This can be normal but if they have been on antibiotics, it can also be a sign of thrush. To get the most out of their low nutritional value diet (Eucalyptus has pretty poor nutrition) ringtails have evolved a neat but gross trick. They partially digest their food and then pass it as a large soft pellet during the day. They then eat this pellet for a second round of digestion, and then excrete a small hard remnant during the night. As a result, you may not see pellets during the day.



Image from: Amanda Reader

## FEEDING RECORDS

It is important to keep records for all possums that may come into care to identify any issues or ensure they are thriving in care. Young should be weighed daily, before feeding, to ensure they are gaining weight.

A record of each possum's weight should be kept. A record of the food intake and urine/faeces output especially for younger possums on several milk feeds a day, is important. This record can help you identify any possible issues and is important if the possum needs to go to another carer or see a vet.

## SOLIDS

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Brushtails and ringtails are only as alike as cats and dogs. From a dietary point of view consider adult brushtails as general eaters, and adult ringtails as small koalas specialised in eating a diet almost completely of Eucalyptus and other native leaves.

When possums progress to the basket stage, they should be offered native leaves. Young possums will find the young gum tips more attractive and easier to eat. Possums have varying likes and dislikes which change daily. Possums must be offered several types of gum leaves (preferably at least 5 species) at once to prevent starvation and increase the chances of the possum consuming some of the provided browse. A possum **MUST** recognise native foods before release and be used to eating them. Native vegetation is also necessary for the possum to maintain healthy gut flora.

Native flowers and roses can be offered to both ringtails and brushtails, however they should only make up a small percentage of their diet.

Juvenile possums can go through growth spurts, and it will seem like they are eating you out of house and home. When caring for brushtail possums, if it is difficult to get enough natives for them to be on an all-native diet, they may be fed fruit and vegetables to supplement. You should only feed brushtails 5% of their body weight in fruit and veg. For example a 340g possum would be given 17g of fruit and veg for 1 night on top of their browse. As the possums get older, the amount you need to feed them will increase. Fruit and vegetables provided to possums should have Wombaroo high protein supplement sprinkled over the top.

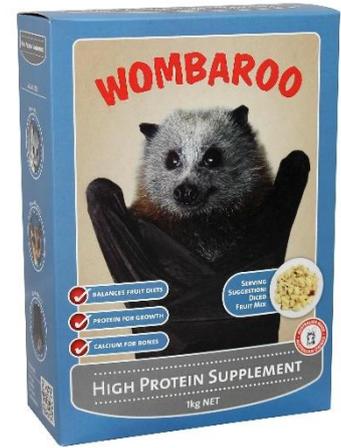


Image from: [vetnpetdirect.com](http://vetnpetdirect.com)

Wild possums also eat fruit and vegetables. In the wild they may come across native fruits and fruit trees such as apple, pear, plum etc. When selecting fruit for your possum consider what they may come across in the wild, e.g. in South Australia they will not find mango and paw paw. For younger possums cut the fruit into about 1cm cubes so they can eat it easier. You can also hang fruit in the aviary using a twisty tie or a fruit spike used for fruit eating birds (available from pet shops). This teaches the possum to eat fruit that

moves and is not cut in pieces. Do not cook vegetables for the possum, they will only find raw foods in the wild when released. **Prior to release, possums should be weaned off all fruit and vegetables – and be eating native proteins, leaves and flowers.**



Image from: [Bridget Jane](#)

Ringtails have overly sensitive digestive systems. In times of heat stress events when it is hard to get fresh browse with tips for ringtails then a small supplement may be given of vegetables such as zucchini, cucumber, spinach, and bok-choy and NO FRUIT but remember lots of eucalypt (gum) tips and other natives including blossoms is their main diet.

Ringtails should not be given fruit due to their sensitive digestive systems. A ringtail's digestive system is closer to a koala than a brushtails. Fruits can cause future issues such as caecal stasis and sugar problems ringtails may be offered a small amount of blossom, but 95%+ of their diet should be native leaves.

Brushtail possums have a more varied diet and eucalypt leaves make up a majority of their diet. Brushtails also eat bugs, fruit, blossoms, fungi, lichen, bark, grasses, bird eggs and meat - this varies between habitats. They do need some protein in their diet for example cooked chicken, mealworms, crickets (bought from pet shop) and hard-boiled egg (mashed).

## SAFE FOODS (BRUSHTAILS)

Plant Species: Common Name	Scientific Name	Time of Year When Eaten
Acacia, silver wattle	<i>Acacia sp.</i>	All months
Eucalyptus	<i>Eucalyptus sp.</i>	All months
Herbs, clovers		November & January
Fine grasses	<i>Poa sp.</i>	January & March
Coarse grasses	<i>Poa sp.</i>	All months
Dock	<i>Rumex obtusifolius</i>	
Tree ferns		
Myrtle beech	<i>Notofagus cunninghamii</i>	Spring & Summer
Satinwood	<i>Phebalium aquameum</i>	July, Sept, November
Ferns, mosses	<i>Various species</i>	January, March, May
Leatherwood	<i>Atherosperma sp.</i>	
Southern sassafras	<i>Eucryphia</i>	All months
Blackwood	<i>Acacia melanoxylon</i>	
Fungi	<i>Various species</i>	Summer & Autumn
Bidgee widgee	<i>Aceana anserinifolia</i>	Spring
Mountain pepper	<i>Drimys lanceolata</i>	All months
Hazel pomaderris	<i>Pomaderris apetala</i>	Summer & Autumn
Pinecones	<i>Pinus radiata</i>	June – September
Fireweed groundsel	<i>Senecio linearifolius</i>	Summer
Native plum	<i>genarrhenes</i>	
Alpine ash	<i>E. delegatensis</i>	All months
Mountain gum	<i>E. dalrympleana</i>	All months
Plumbago flowers and leaves	<i>Plumbago auriculate</i>	
Apricot leaves and fruit	<i>Prunus armeniaca</i>	Autumn
Purple prunus leaves and flower	<i>Prunus sp.</i>	
Accord oak	<i>Quercus palustris</i>	
Mistletoe	<i>Amyema sp.</i>	
Wild tobacco	<i>Solanum mauritianum</i>	

Table From: Husbandry & Rehabilitation of Injured Possums by Dr. Anne Fowler, ©2018

**\*\*DO NOT GIVE EITHER SPECIES: Sweet potato or almonds, these foods have a trypsin inhibitor, a secondary metabolite that reduces the intake of proteins.**

(Reference; [Understanding-Caecal-Stasis-for-Wildlife-Carers-FINAL-V1-Linda-Marr.pdf](#))

Solid supplements that may be offered to brushtail possums in small amounts include:

- Squash, red capsicum
- Eggplant, pumpkin (seeds removed)
- Cucumber, zucchini, green beans, and turnips

You may include to the above **one** piece of:

- Apple, banana, apricot, peach, plum, pear
- Carrot, grapes, strawberry, corn
- Melon, spinach, or celery

To this you may add either Wombaroo high protein powder or a protein supplement such as:

- Insects (mealworms, crickets etc.), cooked chicken
- Cheese and unsalted nuts

Suitable grasses and weeds to offer include:

- Dandelion, dock, and thistle are eaten in the wild
- Summer grass and winter grass

## SAFE FOODS (RINGTAILS)

Species	Scientific Name	Species	Scientific Name
Narrow leaved wattle	<i>Acacia mucronate</i>	Broad-leaved peppermint	<i>E. dives</i>
Sliver wattle	<i>A. dealbaa</i>	Narrow-leaved peppermint	<i>E. radiata</i>
Blackwood	<i>A. melanoxylon</i>	Gum topped peppermint	<i>E. adrewsii campanulata</i>
Late Black wattle	<i>Acacia mearnsii</i>	River red gum	<i>E. camaldulensis</i>
Flinders Range wattle	<i>A. iteaphilla</i>	Spotted gum *Lowest tannin	<i>E. maculate</i>
Prickly tea tree	<i>L. juniperinum</i>	Manna gum – rough bark	<i>E. cygnetensis</i>
Coastal tea tree	<i>Leptospermum laevigatum</i>	Manna gum – ribbon gum	<i>E. viminalis</i>
Musk daisy bush	<i>Olearia arophyllia</i>	Swamp gum	<i>E. ivata</i>
Hazel pomaderis	<i>Pomaderris apetala</i>	Messmate stringy bark	<i>E. obliqua</i>
Shining cassinia	<i>Cassinia longifolia</i>	Forest red gum	<i>E. tereticornia</i>
Peppermint	<i>Agonis flexuosa</i>	Southern mahogany	<i>E. botryoides</i>
Blackberry	<i>Rubus sp.</i>	Long-leaved box	<i>E. goniocalyx</i>
Lily pili	<i>Eugenia smithii</i>	Mountain ash	<i>E. regnans</i>
Grevillea	<i>Grevillea sp.</i>	Lemon scented gum	<i>E. cintriodora</i>
Coastal bearded heath	<i>Leucopogon parviflorus</i>	Flowering gum	<i>E. calophylla</i>
Musk daisy bush	<i>Olearia argophylla</i>	Red flowering gum	<i>E. ficifolia</i>
Pussy willow	<i>Salix caprea</i>	Red stringy bark	<i>E. macrorhyncha</i>
Acorn oak	<i>Quercus robur</i>	Paperbark/tea tree	<i>Malaleuca sp.</i>
Tree everlasting	<i>Helichrysum dendroideum</i>	Swamp paper bark	<i>M. ericifolia</i>
Japonica	<i>Chaenomeles sp.</i>	Scented paper bark	<i>M. squarrosa</i>
Liquid amber	<i>Liquidamber styraciflua</i>	Broad-leaved paperbark	<i>M. quinquenervia</i>
Corea	<i>Corea sp.</i>	Rosy paperbark	<i>M. erubescens</i>

Table From: Husbandry & Rehabilitation of Injured Possums by Dr. Anne Fowler, ©2018

For further resources or ideas on what is acceptable to feed your possums please contact a district co-ordinator or species specialist.

## RELEASE METHODS

An adult possum rescued from the wild must always be released back within 50m of where it came from unless there are truly exceptional circumstances that must be discussed with a district co-ordinator. In most cases, a hard release with or without a box (see below) will be most suitable.

If the possum is a juvenile, the same conditions apply but, in this case, if the animal has been in care for at least 4 weeks to have time to imprint on a box, hard release with their box is recommended.

Start planning the release of your orphans when they first come in. Make sure you talk through this last step of the process of sending your animals back to the wild with your district co-ordinator or species specialist. There are many things to consider ensuring your possums have the best chance of survival after all the hard work you've done in getting them to this point. With all our best intentions we cannot provide the same training for survival that a natural possum mother would, so the planning of the release must be done very carefully. One thing we know for sure is there needs to be more research to ensure we know the best release methods for hand-raised possums. For now, we work with what we know from the research that has been undertaken and from anecdotal evidence from carers with years of experience.

There are basically 2 release methods recommended for hand-raised orphans:

1. Quick Release (or Hard Release)
2. Staged Release (or Soft Release)

Before we talk about these two methods however, the most important factor is site choice.

Ideally, you have the locations of where your joeys were found. These are possibly good sites as we know possums already live there. However, you may decide these sites are not suitable due to busy roads, dogs, cats, foxes, and other dangers. In that case you need to find another suitable site, most likely private land as you cannot release hand-raised animals in a National or Conservation Park.

### Criteria for Assessing a Release Site

- Distance from human settlement (not too close)
- Availability of suitable food, water, and shelter
- Is the species present? (If not why?)
- Time of year
- Weather forecast (pick a clear week without storms or too hot)
- Lack of construction or clearing plans
- No hunting permits
- Distance from roads
- Cats and foxes absent (in an ideal world)
- Insulated overhead electricity

The Department of Environment and Water (DEW) want you to consider the following:

(Reference; [pa-gen wildlifecaptivityguidelines.pdf](#))

- An animal being released must be able to fend for itself, physically fit and able to recognise and obtain natural food.
- An animal being released must not be humanised, incapacitated, a biosecurity risk, showing signs of disease or unlikely to survive.
- Animals are not to be released outside the species normal distribution.
- Animals with permanent disabilities that compromise their ability to survive in the wild are not to be released.
- It is an offence under the Natural Resources Management Act 2004 to release exotic animals (e.g., turtle doves, Barbary doves, sparrows etc.).

Protected wildlife **must not be returned to the wild if:**

- The animal is imprinted, humanised, handicapped, or disadvantaged by a disability, condition or age which could reasonably be expected to preclude it from leading a normal life and surviving in the wild, or
- The animal is reasonably suspected of carrying a disease or a condition which is likely to be transmitted to the detriment of local populations or habitat.

### Release Weights

The weights are which we recommend hand-raised possums are released is:

- 450-500g ringtails
- 800-850g brushtails

We release at these weights, and not bigger than this, so that they are moving into their new environment before they are sexually active and therefore not presenting yet another threat to the existing populations.

### Box Installation Team

SOWFI have a fully trained and equipped box installation team, so you don't need to risk personal injury by climbing ladders with heavy boxes. Please ensure you **give the team at least 4 weeks' notice** before you need them to install your release box. This can be done via the members section of the SOWFI website.

It is your responsibility to:

- Maintain contact with the landholder and coordinate dates and times
- Bring the possums in their release box
- Arrive at the agreed time
- Assist the box installer where required
- Assist in selecting the best tree/location on the property

## QUICK RELEASE (HARD RELEASE)

Once you have chosen your site and have permission from the landowner, you will be required to find a suitable tree with branches (or ropes) enabling connection between trees and place the box with the possums onto the tree. Transport the possums in the release box they have spent the last 4 weeks or more in, with a piece of cardboard taped over the entrance and use a seatbelt to hold them in place. This should be done late in the day but before dark for your safety.

The box should be placed on the eastern side of the tree to avoid the hot afternoon sun with the entrance facing north, to avoid the wind and rain blowing in from the south. The box will be the one they have been living in for at least 4 weeks, so they have imprinted on the box.

## STAGED RELEASE - USING A SOWFI PORTABLE TRAILER AVIARY

Releasing a hand-raised orphaned joey into the wild is a big step for an animal that's been raised in a protected habitat from a very young age. If they are released back to the location, where they were found (which is not always possible or suitable) it has still been a fair time since they were last there. We do not know if they will be recognised and accepted by their parent. They will be placed into a location effectively unknown to them and potentially with a different source of food to that they have been raised on.

It makes perfect sense then that we continue the transitional stages we start by taking them from a warmed carrier to small cage, medium cage and then aviary. These incremental changes help to reduce the fear and stress and allow the animal time to adjust and prepare. This final release stage is then in the trailer aviary, placed on the location (Private land) for a couple of weeks. While in the aviary they get used to the sights and sounds of their new home, meet the locals who no doubt will be curious and will visit and eat the browse from this area. This time in the aviary allows the animals to de-stress and eat normally before release.

After 10-14 days (this time depends on the 'wildness' of the possums) the release hatch is opened, and they can go out and explore, still having the safety of a box in the aviary. It is unlikely a wild possum will enter the aviary, giving them an 'escape' while they transition to being wild. The carer or landholder continues to put fresh browse in the aviary each day until the possums stop coming back.



Image from: Marian MacLucas

Before the release hatch is opened, their box (the one they have lived in for at least 4 weeks and imprinted on) is taken out of the aviary and placed on a tree with either a connecting branch or rope from the aviary to the tree. They are placed in a temporary box in the aviary. This encourages them to go to their box on the tree which feels safe and has their smell.

If the release site is suitable for possums, it is likely other possums will be there. They compete for food, homes, and partners. We can assist by providing a home and releasing them before they are sexually active, helping them to blend more easily into the existing population. The site should have plenty of accessible and appropriate feed.

### **Procedure**

- Discuss release methods and release sites with your SOWFI district co-ordinator if you are unsure
- Book a trailer - contacts for the 2 trailers can be found on SOWFI website volunteer section and the box installation team
- Find a release site, meet the landowner, and ensure they are happy and understand their commitment.
- Pick up the trailer and place on site, go over again requirements of landowner regarding leaf, fresh water etc.
- After your chosen period of time in enclosure (usually 10-14 days), the Box Installation team will place their box on adjoining tree, replace with temporary box in trailer and open the release hatch.
- Ensure leaf is still being put into enclosure until possums stop coming back
- Pick up, clean trailer, and return to its home base
- Wait at least 1 year until you use the location again for the same species

Reference; Possum Release by Marian MacLucas ©2020

## **ACKNOWLEDGEMENTS**

Thanks to Natalie and Bridget Jane Logan, Marian MacLucas, Amanda Reader, and everyone else who helped to produce this manual and course.

Thank you also to all the possum carers and rescuers who supplied their pictures and knowledge for use in this manual. And to those who took on the rescues and care, so we had time to produce this course.

Finally, to the possums of South Australia - thank you for giving us such interest, knowledge, and joy. It is a great privilege to assist you however we would prefer that you stay safe and in your trees.

### **Additional References**

Husbandry & Rehabilitation of Injured Possums by Dr. Anne Fowler, ©2020

BSAVA Textbook of Veterinary Nursing 5th edition (formerly Jones's Animal Nursing)

Current Therapy in Medicine of Australian Mammals by Larry Vogelneust and Timothy Portas

Wombaroo Milk Replacers & Food Supplements for Native Animals, 4th Edition 2017

# BRUSHTAIL POSSUM FEED CHART



Milk	Weight (g)	Feed (mL/day)	Feed Freq.	Toilet	Flora	Heating	Housing	Notes
<b>&lt;0.8</b>	42	10	2 hourly = 12x per day	✓	Nil	32-33°C	Incubator	
	58	13	3 hourly = 8x per day	✓	Nil	32-33°C	Incubator	
	80	17	3 hourly = 8x per day	✓	Start Offering Native Plants	32-33°C	Incubator	
	105	20	4 hourly = 6x per day	✓	Offer Native Plants	32-33°C	Incubator	
	112	20	4 hourly = 6x per day	✓	Offer Native Plants	32-33°C	Incubator	
<b>Transition</b>	125	20	4 hourly = 6x per day	✓	Offer Native Plants	30-32°C	Basket with heat	15ml <0.8 + 5ml >0.8
	140	20	4 hourly = 6x per day	✓	Offer Native Plants	30-32°C	Basket with heat	10ml <0.8 + 10ml >0.8
	150	20	5 hourly = 5x per day	✓	Offer Native Plants	30-32°C	Basket with heat	5ml <0.8 + 15ml >0.8
<b>&gt;0.8</b>	170	20	5 hourly = 5x per day	✓	Offer Native Plants	28°C	Basket with heat	
	210	26	6 hourly = 4x per day	✓	Offer Native Plants	✗	Basket	
	235	26	6 hourly = 4x per day	✓	Offer Native Plants	✗	Basket	
	250	30	8 hourly = 3x per day	✗	Offer Native Plants	✗	Small Cage	
	270	30	8 hourly = 3x per day	✗	Offer Native Plants	✗	Small Cage	
	290	32	12 hourly = 2x per day	✗	Offer Native Plants	✗	Small Cage	
	310	32	12 hourly = 2x per day	✗	Offer Native Plants	✗	Medium Cage	
	340	32	12 hourly = 2x per day	✗	Offer Native Plants	✗	Medium Cage	
	350	35	12 hourly = 2x per day	✗	Offer Native Plants	✗	Medium Cage	

# BRUSHTAIL POSSUM FEED CHART



Milk	Weight (g)	Feed (mL/day)	Feed Freq.	Toilet	Flora	Heating	Housing	Notes
	370	35	12 hourly = 2x per day	✗	Offer Native Plants	✗	Medium Cage	
	390	35	12 hourly = 2x per day	✗	Offer Native Plants	✗	Medium Cage	
Weaning	410	35	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	420	30	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	430	25	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	440	20	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	450	15	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	460	10	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	470	5	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	480	✗	✗	✗	Offer Native Plants	✗	Medium Cage	
	510	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
	535	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
550	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily	
570	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily	
590	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily	
650	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily	
800	✗	✗	✗	✗	✗	Release		

# RINGTAIL POSSUM FEED CHART



Milk	Weight (g)	Feed (mL/day)	Feed Freq.	Toilet	Flora	Heating	Housing	Notes
<b>&lt;0.8</b>	35	9	3 hourly = 8x per day	✓	Nil	32-33°C	Incubator	
	38	10	3 hourly = 8x per day	✓	Nil	32-33°C	Incubator	
	42	12	3 hourly = 8x per day	✓	Nil	32-33°C	Incubator	
	52	14	4 hourly = 6x per day	✓	Nil	32-33°C	Incubator	
	54	14	4 hourly = 6x per day	✓	Nil	30-32°C	Basket with heat	
	57	15	4 hourly = 6x per day	✓	Nil	30-32°C	Basket with heat	
	60	15	4 hourly = 6x per day	✓	Nil	30-32°C	Basket with heat	
	62	15	4 hourly = 6x per day	✓	Start Offering Native Plants	30-32°C	Basket with heat	
<b>Transition</b>	74	15	5 hourly = 5x per day	✓	Offer Native Plants	28°C	Basket with heat	10ml <0.8 + 5ml >0.8
	90	16	5 hourly = 5x per day	✓	Offer Native Plants	28°C	Basket with heat	8ml <0.8 + 8ml >0.8
	110	18	8 hourly = 3x per day	✗	Offer Native Plants	✗	Small Cage	6ml <0.8 + 12ml >0.8
<b>&gt;0.8</b>	125	18	8 hourly = 3x per day	✗	Offer Native Plants	✗	Small Cage	
	140	18	8 hourly = 3x per day	✗	Offer Native Plants	✗	Small Cage	
	150	18	8 hourly = 3x per day	✗	Offer Native Plants	✗	Small Cage	
	170	18	8 hourly = 3x per day	✗	Offer Native Plants	✗	Small Cage	
	200	20	12 hourly = 2x per day	✗	Offer Native Plants	✗	Medium Cage	
	235	20	12 hourly = 2x per day	✗	Offer Native Plants	✗	Medium Cage	

# RINGTAIL POSSUM FEED CHART



SAVE OUR WILDLIFE FOUNDATION INC.

Milk	Weight (g)	Feed (mL/day)	Feed Freq.	Toilet	Flora	Heating	Housing	Notes
Weaning	250	20	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	260	15	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	270	10	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	280	5	24 hourly = 1x per day	✗	Offer Native Plants	✗	Medium Cage	
	290	✗	✗	✗	Offer Native Plants	✗	Medium Cage	4g protein powder or protein supp. daily
	300	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
	340	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
	350	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
	370	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
	390	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
	410	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
	420	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
	430	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
	440	✗	✗	✗	Offer Native Plants	✗	Aviary	4g protein powder or protein supp. daily
450	✗	✗	✗	✗	✗	✗	Release	

**Common Ringtail Possum (*Pseudocheirus peregrinus*)**

Milk	Age (days)	Tail (mm)	Head (mm)	Weight (g)	Feed (mL/day)	Notes
<0.8	60	75	25	35	9	
	70	90	28	38	10	
	80	105	32	42	10	
	90	120	35	52	12	Eyes opening
Transition	92	123	35	54	12	9mL <0.8 + 3mL >0.8
	95	128	36	57	12	6mL <0.8 + 6mL >0.8
	98	132	37	60	12	3mL <0.8 + 9mL >0.8
>0.8	100	135	38	62	12	
	110	150	41	74	12	Emerging from pouch
	120	165	45	90	14	
	130	180	48	110	16	Fully out of pouch
	140	195	51	135	18	
Weaning	160	Growth rate now about 3-6g/day			12	Eating significant leaf
	180	Not valid			0	Fully weaned (approx. 310g)
	210					Release age (approx. 490g)

**Common Brushtail Possum (*Trichosurus vulpecula*)**

Milk	Age (days)	Tail (mm)	Foot (mm)	Head (mm)	Weight (g)	Feed (mL/day)	Notes
<0.8	80	67	21	36	42	10	
	90	82	26	41	58	13	
	100	98	30	45	80	17	Fine fur visible
	110	116	35	49	105	20	Eyes opening
Transition	112	120	36	50	112	20	15mL <0.8 + 5mL >0.8
	115	125	38	51	125	20	10mL <0.8 + 10mL >0.8
	118	131	40	53	140	20	5mL <0.8 + 15mL >0.8
>0.8	120	135	41	54	150	20	Emerging from pouch
	130	155	47	58	210	26	Fully furred
	140	168	52	61	290	32	
	150	181	56	64	390	40	Fully out of pouch
Weaning	160	Growth rate now about 7-15g/day				40	Feed volume now depends on amount of solids consumed
	180	Not valid				20	
	200					0	Fully weaned
	250						Release age

Be advised these are only guides, and the measurements are based on Wombaroo research conducted out-of-state



# RINGTAIL DREYS

Ringtails are mostly arboreal (unless there is no canopy path to a tree they wish to visit) so always place ringtail dreys at the top of the cage to give joeys a sense of normality from being high above the ground.

It's important to always release hand-raised ringtails with their own drey that their smell is in and if it's a wire hanging basket drey, you should return some months later to retrieve it (if vacated) as often the coir gets stripped out by the occupants making a drey elsewhere, leaving just the wire cage hanging which becomes an entanglement hazard for wildlife.

## Hanging Basket Drey

Two hanging baskets with coir inserts held together with cable ties. Must have an entry and a less visible exit. Can be attached inside cage/aviary or at release site with cable ties.

- **Wash and dry coir inserts before use as it is imported and may be treated with pesticide.**
- **Don't cut off cable ties as it leaves sharp points, tuck them in or point them away from the drey**
- **You can make an opening drey so that removing possum(s) to weigh, dose or treat is easier**
- **You can also thread bark and leaves through the wires on the outside**

Requirements	Preparation
<ul style="list-style-type: none"><li>○ 2x wire hanging baskets and coir inserts (10" for up to 4 ringtails, 12" for up to 8 ringtails)</li><li>○ Small cable ties</li><li>○ Small screwdriver for poking holes in coir</li></ul>	<ul style="list-style-type: none"><li>○ Remove tags and plastic</li><li>○ Hang new baskets and hose to remove manufacturing or pesticide residue</li><li>○ Allow to air dry in sun</li></ul>

## How to Make the Drey

1. Bottom - put the bottom liner inside the wire basket and tie in place
2. Top - remove the chain and place the fibre liner on top of the wire basket
3. Spread the wire apart on the top of the wire basket to make an opening. Cut a tennis ball size hole in the top liner to form an entrance, and tie in place
4. Cable tie the two sections together in at least four places
5. Extend the chain from the bottom section over the combined baskets and attach a hanging hook (made from a cut-off piece of wire coat-hanger)
6. Soft leaf litter or coconut fibre can be placed in the bottom of the drey for added comfort for the animal, and a few layers of paperbark tied on top of the drey gives it extra protection from inclement weather and also looks 'natural'



Image from: Marian MacLucas

Reference; Housing Ringtail Dreys by Linda Marr ©2020, Homes for Ringtail Possums WIRES ©2020

# APPENDIX 1 - DISEASES AND INJURIES

## Spinal Injuries

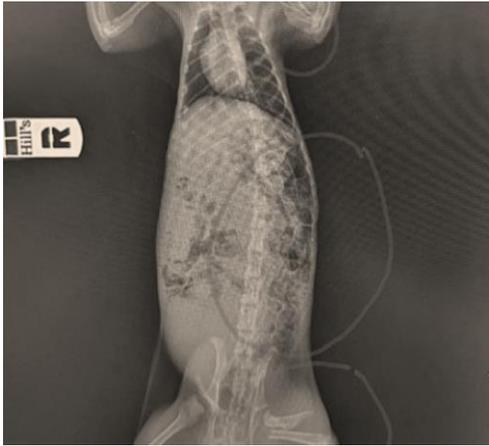


Image from: Lisa Depalo

## Spinal Curvature

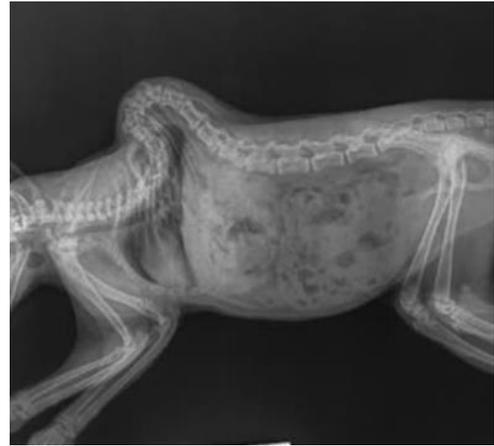


Image from: Para Hills Vet Clinic

## Broken Bones



Image from: Natalie Logan

## Head Trauma



Image from: Danielle Fidge

## Domestic Animal Attack



Image from: Bridget Jane

## Bird Attack



Image from: Robbie Jones

# APPENDIX 2 - DISEASES AND INJURIES

**Burns**



Image from: Cheryl Brentson

**Corneal Ulceration**



Image from: Unknown

**Old Age**



Image from: researchgate.net

**Presence of Oil on Fur**



Image from: Lisa Depalo

**Diarrhoea**



Image from: Natalie Logan

**Malnutrition**



Image from: Katrina Baker