

Citizen Science for the Western ringtail possum

Living with western ringtail possums – avoiding conflicts while promoting conservation of a threatened species

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In Australia, we are very lucky to be able to see numerous native fauna species on a regular basis. Kangaroos, possums and even bandicoots are just a few of the animals that we can find living in and around urban areas. Many of these animals were always there, and sadly our encounters with them are a result of us moving in to their territory – not the other way around.

Despite this, we sometimes find ourselves at odds with some of our native species, including the threatened western ringtail possum. Some species, like the ringtail, seem to be able to adapt to living with us in urban and peri-urban areas. We should view this as an opportunity to provide habitat for our wildlife, considering the extent of habitat loss that has occurred since the time of European colonisation. Below are some scenarios where this co-existence can go wrong, and solutions are offered for overcoming conflicts.

Scenario 1: Possums are in my roof – making a lot of noise at night, and defecating in the roof space! I want them gone!

This is one of the biggest sources of conflict between people and possums. It is completely understandable. Sleep deprivation and damage to ceilings and walls are not the price we should pay for living with wildlife. Fear not! Solutions are available and not expensive to deploy. Sometimes the only cost is a bit of time. First, you need to be sure it is in fact a possum and not rats that are in your roof! They will require different measures to manage their occupation.

It is important to realise that actively catching and removing possums and relocating them away from your property is not considered an option by any government agency. They will strongly encourage the following steps as they provide the best long term solution to the situation. It is illegal to interfere, transfer or harm native wildlife without explicit approval by the relevant agency and demonstration that all other measures to overcome the issue have been attempted.

1. The first step is to determine all possible entry and exit points from your roof space. The possums are not in there 24 hours a day. They usually leave around dusk to commence their nightly antics of looking for food and mates (during the breeding season). Next, determine which of the entry points the possum is using to come and go.

2. Block all entry points except the one that is being used. Wait until dusk or dark, and observe the possum (or possums if it is more than one in the roof) leave for their evening of fun.
3. Block the entry point – block it really well. Sheet metal firmly nailed down, mesh with holes less than 2cm (entry points can be as small as 5cm in diameter) and wooded sheets also nailed down will probably work. Another option is a one-way pet door. Bricks do not work well. Possums are strong, so anything you put in place will need to be able to withstand their prising paws. You can block the hole with a temporary fix such as scrunched up wire on the first night. Then during the day you can close off the entrance with a more permanent solution.



Western Ringtail Possums in roof.
Image: Peter Eckerlsey



NZ Christmas Tree.
Image: Bernard Dupont

Scenario 1: (continued)

4. Consider putting up a nest box (or homemade drey for ringtails) in a tree on the property. This will help them to stay in their established territory, without the conflicts that arise from them residing in your roof. You could even tempt them with some fresh peppie (*Agonis flexuosa*) leaves or bottlebrush flowers to encourage them to take up residence in the box or drey. Place it close to the box so they can find it easily. Installing the box where it is easily accessible for maintenance is recommended.
5. Consider pruning any overhanging branches away from the roofline as these can provide the pathway to the roof. However, only do this after any resident possums have vacated.
6. If you live in a house with no possible way to block all entry points, you also have a strategy to try that has been effective for many people. Install a high efficiency LED light in the roof. Perhaps a couple if it is a very big roof space. Keep them switched on at all times. This will obviously carry a small cost to run them, but relative to the cost of losing sleep, property damage or moving house, it is a feasible solution.



Western ringtail possum on fence.
Image: L. Knight

Scenario 2: Possums are eating my garden plants!

Another common source of conflict stems from the assortment of well-watered and well-nourished plants we have 'on offer' in our gardens. Against a backdrop of diminishing biodiversity in nature and a drying climate, it's not hard to see why urban gardens and parks become the go to place for possums to get a lovely nutrient-rich array of food to choose from.

Put yourself in their shoes – in a matter of speaking. Let's say, possums are consistently eating plants growing along your fence lines. For a possum that uses fences to navigate the urban landscape (more on this later), walking that fence line can be like walking past a grazing table at a party. Of course they are tempted by the yummy treats they see. Who doesn't succumb to the temptation of items on offer on grazing tables? Here is some food for thought (pun intended) to find solutions to this conflict:

- Consider planting your beloved garden plants that you are not willing to sacrifice to possums away from fences. Possums will not readily come to ground and cross lawns to access food sources.
- Plant extras of the plant that they seem to have a particular penchant for. Farmers in the UK do this regularly for birds – it's called sacrificial cropping. Your garden can do much more than look attractive – it can be valuable habitat. This is one way to move towards this ethos.
- For fruit and vegetables, it can be especially difficult to sacrifice your yield to possums – psychologically at least. In these instances, it may be best to put physical barriers in place.
- Cages made from small gauge chicken wire, held down with pegs, can be effective barriers to possums. However, if possums do manage to get inside these fixtures, they can become trapped and disorientated. If you choose this mechanism, you need to be sure there is no way for them to get in.
- Place sensor lights in your yard facing the garden plants you are trying to deter possums from munching on. They need to be bright – bright enough that they feel exposed to predation by being illuminated. Be aware, if you have neighbours at close quarters, they may not appreciate this strategy.
- Consider transitioning your garden into a nature refuge. Let go of the attachment to certain plants. If you are living within the range of a threatened species, see it as an opportunity to have a garden that is much more than just that. Your garden could play a critical role in conservation, if you approach it with the right frame of mind. Plant species that do attract wildlife into your garden. Choose plant species known to be preferred by western ringtail possums (See list in the box about habitat plants below) and plant these along the fence line, as opposed to the plants you don't want them to eat! Provide nest boxes and dreys. But do refer to the measures outlined in this fact sheet to keep the possums out of your roof!

Peppie flowers.
Image: R. Steven



Scenario 3: My dog goes crazy every time a possum passes through the property and sometimes even catches and kills them!

Everyone loves their pets – as they should. The sound of a cat purring and the devotion that dogs show to their owners are joyful experiences for most. However, there is no getting around the fact that cats and dogs in urban backyards are one of the biggest threats to wildlife living alongside us in urban areas. In response to this, some might say “That’s what reserves and national parks are for. Everything else should live there”. The reality is, the current network of protected areas do not come remotely close to providing adequate space for all species to persist. This means that urban gardens and other private properties are going to be critical for biodiversity now and in the future. Where does this leave our beloved pets? Ideally, not out in the cold! Most mammals in urban gardens are nocturnal, so night time is the highest risk time for all concerned.

- Vets and animal welfare groups all agree that cats should be kept indoors, if not at all times, then certainly at night time. Cars, disease, other cats (un-desexed)

and cat-haters are all real threats to cats that are allowed to roam. Not to mention the impact cats have on wildlife! Keeping cats in at night is the best way to protect them and wildlife.

Dogs require some different management strategies.

- If your dog has bailed up a possum in your garden, restrain the dog and move it to a location where the possum is not visible. Keep the dog in this place for at least one hour, allowing the possum to move away to a more secluded location. Before releasing your dog, check to ensure the possum is not visible and or accessible.
- Some dogs will respond well to aversion training. Seeking expert advice in how to train your dog to not react to the presence of possums can be effective (especially barking and harassment behaviours), and could possibly improve other behavioural challenges.

- Additionally, dogs may charge fences and ultimately knock possums off fence lines while they are passing through the property. This is always a risk in areas where there are no other routes for possums to get from point A to point B in their nightly travels. Assess the route they are taking. Can you provide an alternate pathway for them that keeps them at a height not accessible to dogs? It could be as simple as tying a thick rope between two regularly used trees or even wedging a long piece of wood or branch securely between the two points, if the distance allows this to be done safely. It may be necessary to use some wire or rope to ensure the fixture will not become dislodged in high winds or storms.
- If your dog is allowed indoors, consider keeping them in at night.

Habitat plants for western ringtail possums

Check appropriateness for your property by reading additional information here:

https://geocatch.asn.au/wp-content/uploads/2018/08/Plants-for-a-Possum-Friendly-garden-CK_20171011.pdf

This is not a comprehensive list, but suggests some of the local species appropriate as food and/or shelter for the western ringtail possum. As a first preference, local species are best for possums and local biodiversity more generally. There are a number of non-native species that the western ringtail possum will also use as food and/or shelter. These include the New Zealand Christmas Tree and various cultivated fruits and vegetables.

The nutritional value of these plants is unknown for the western ringtail possum. In general, species from the family Myrtaceae (e.g., eucalypts, bottlebrush, peppermint and melaleuca) are probably the most appropriate source of food for western ringtail possums. Ringtails have evolutionary adaptations in their gut flora that enable them to digest these sorts of plants. Other native species can play a significant role in providing shelter and refuge. A diversity of native plants that provide multiple benefits to western ringtail possums and other species are needed for all to thrive in the highly modified urban landscape.

- Peppermint tree (*Agonis flexuosa*) – food source

- West Australian golden wattle (*Acacia saligna*) and other wattles – food source
- Marri (*Corymbia calophylla*) – food source
- Jarrah (*Eucalyptus marginata*) – food source
- Bottlebrushes (*Callistemon spp.*) – food source and shelter
- Banksia (*Banksia attenuata*, *Banksia grandis*, *Banksia littoralis*) – shelter
- Coast sword sedge (*Lepidosperma gladiatum*) – shelter
- Teatree (*Melaleuca spp.*) – food source and shelter



Western ringtail possum.
Image: R. Steven

What to do with an injured western ringtail possum

If you find an injured possum in Western Australia – or any other wildlife, please contact the following:

1. Phone the DBCA Wildcare Helpline on (08) 9474 9055. Note the location, time of day and condition of the animal where you found it.
2. Follow the advice from the call centre operator. They may put you in touch with the nearest wildlife rehabilitator that can take the animal into care, or you will more likely be asked to take the animal to a vet in the first instance.
3. Capture and contain the animal securely so that it does not injure itself or you – use a towel or similar to pick it up and place in a strong, well ventilated box or pet carrier in a quiet, dark place. Do not feed the animal or give it water unless you have been advised to do so.

Be careful of teeth, claws, beaks etc. when approaching and handling wildlife. Although injured, animals can be very dangerous when frightened or stressed.

Animals should not be taken into care unless directed to by the Wildcare helpline, a DBCA representative or qualified vet. Being in an 'odd' place or looking weird is not always an indication of stress/injury. Unnecessary interaction can prove fatal.

Adapted from information by FAWNA Inc. Further details can be obtained from Department of Biodiversity, Conservation and Attractions. www.dpaw.wa.gov.au/about-us/contact-us/wildcare-helpline

Get involved in citizen science for the western ringtail possum

Every day: Download and use the CAUL Urban Wildlife App – you can submit sightings from anywhere on your smart device. Your garden, the local park or just walking along any of the many street trees the species use. If you see a possum, share the information with us! Download it here:

Google Play <https://tinyurl.com/v47o83y>

App Store <https://tinyurl.com/rkcgr8x>

Annual events:

Many catchment councils and conservation groups run annual citizen science events for western ringtail possums. These are a great way to get lots of eyes on the ground at one time for a snap shot assessment of the species presence across the South West.

Contact these groups to get involved:

GeoCatch (<https://geocatch.asn.au/>)

Leschenault Catchment Council (<http://www.leschenaultcc.org.au/>)

Nature Conservation Margaret River Region (<https://www.natureconservation.org.au/>)

South Coast NRM (<https://southcoastnrm.com.au/>)

South West Catchments Council (<https://swccnrm.org.au/>)

References and further reading:

The information presented in this flyer has been synthesised from a suite of informative resources available online, as well as through direct communications with citizen scientists and urban residents in the South West of Australia.

https://www.dpaw.wa.gov.au/images/documents/conservation-management/off-road-conservation/LFW/2005346_possum_bro_2005.pdf

<https://kb.rspca.org.au/knowledge-base/how-can-i-live-happily-with-the-possums-on-my-property/>

<https://geocatch.asn.au/our-work/biodiversity/western-ringtail-possum/helpingwesternringtailpossums/>

<https://www.natureconservation.org.au/wp-content/uploads/2018/05/WRP-and-your-property-A5-booklet.pdf>

Further Information

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