Possums: A Public Health Communication Guide

Purpose:

This guide aims to assist journalists, media outlets, writers in public relations, and, communications and marketing teams, in the preparation of stories, media releases and other public communications on public health issues relating to Australian possums.

Context:

Possums are protected native Australian marsupials. Two species, the common ringtail possum (*Pseudocheirus peregrinus*) and the common brushtail possum (*Trichosurus vulpecula*) have the ability to inhabit urban environments and are the focus of this guide. Due to the potential for these species to interact with humans public perception of these possums can vary. Recent scientific developments have provided more information on the epidemiology of Buruli ulcer, a disease caused by the bacteria *Mycobacterium ulcerans*, which can affect both possums and people. This has led to increased media interest regarding the role of possums in disease transmission. However, transmission pathways for Buruli ulcer are complex and still not fully understood. It is important to clearly communicate disease risks associated with possums, as media content that is sensationalised or has incorrect messaging can contribute to negative public perceptions of possums and wildlife in general. This can lead to persecution of wildlife and even pose a threat to conservation (Gregg et al., 2021; Macfarlane & Rocha 2020).

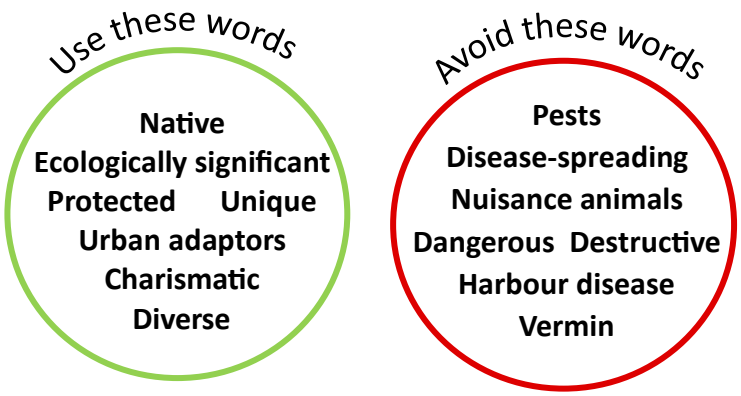
Balanced communication ensures relevant public health information is paired with information highlighting the inherent value of native possums and discourages stigmatising language. This guide provides a checklist of communication do's and don'ts, words and phrases to avoid, or focus on, and example statements and photos for communication about Australia's possums. For the remainder of this document, the generic term "possums" will be used in reference to the common ringtail possum and the common brushtail possum.

When to use this guide?

This guide is designed to be used when preparing media releases or responding to media enquiries pertaining to Australian possums, particularly relating to diseases or other situations where there is human-wildlife interaction. Examples include:

- Buruli ulcer information, including risk of disease to humans and prevention.
- The role of possums in relation to other infectious and potentially zoonotic diseases.
- Electrocution of possums on powerlines causing power outages.
- Human-possum interactions in urban areas (e.g. pet-possum interactions, relocating possums, gardening & possums)

Possum Descriptors and Adjectives:



Communication Checklist:

This checklist can be used to encourage balanced communication about possums.

Don't…	Do…
○ Use sensationalist language including "clickbait" style headlines. ○ Use exaggerated claims or descriptions. ○ Use fear inducing or misleading photos of possums, including with signs of disease, in cages or in urban spaces including on powerlines. ○ Use fear inducing or emotional language particularly when discussing disease risks. ○ Use "us versus them" language. ○ Reinforce misconceptions about possums.	○ Ensure use of scientifically accurate, referenced information. ○ Seek technical review (see below). ○ Use matter-of-fact language without hyperbole. ○ Provide context for quotes, claims or research findings. ○ Include advice on how members of the public can report sick, injured, or orphaned possums for management by trained people. ○ Promote co-existence with possums. ○ Address and dispel misconceptions and myths. ○ Include appealing photos of possums in their natural habitat or engaging in natural behaviours. ○ Ensure any photos of people handling possums show correct use of personal protective equipment (e.g. gloves).

Checklist Examples

✗ *"Residents are reminded to not touch possums as they might catch Buruli ulcer, a flesh-eating disease".*

- Lacks information so can easily be misinterpreted.

✓ *"The way humans are infected with Buruli ulcer is not fully understood. Residents are reminded to call wildlife professionals if they find a sick, injured, or orphaned possum."*

- Provides context for the disease, includes practical advice.

✗ *"Residents complain: Pesky possums destroying our gardens"*

- Uses negative, exaggerated language.

✓ *"Possums in your garden? Living alongside native wildlife"*

- Reminds people that possums are protected native species.

✗ *"Potentially diseased brushtail possums are increasingly moving into your homes".*

- Uses negative, fear-inducing language.

✓ *"Brushtail possums are well adapted to living alongside us. Disease risks associated with possums are very low, but here's what to remember when co-existing with possums."*

- Highlights possum adaptation and encourages tolerance and co-existence.

Possum photos do's and don'ts:

✓ Possums in their natural environment or being cared for appropriately with correct use of personal protective equipment (PPE) demonstrated.

Adult common ringtail possum. S Franklin via Unsplash

Subadult female common brushtail possum. N Taylor

✗ Possums in cages, on powerlines, in gardens, on roofs or interacting with people or pets in a way that promotes negative thinking and behaviour.

Common brushtail possum. R Soto via Pixabay

Common ringtail possums. N Taylor

Technical Review Options:

Possible contacts who can review communications before release:

- Wildlife Health Australia Coordinators or Environment Representatives, based in the relevant state/territory agency for agriculture or environment respectively (link to contact details).
- Wildlife Health Australia (link to contact details)
- Local wildlife rescue and rehabilitation groups
- Possum researchers, expert ecologists and wildlife health professionals

Useful talking points

General possum information

- Australian possums fall within the Suborder Phalangerida, which contains 30 species of possums, cuscuses and gliders.
- There are many different types of possums found in Australia, including the well-known common ringtail (*Pseudocheirus peregrinus*) possum and the common brushtail possum (*Trichosurus vulpecula*). Many other possum species are seldom seen and have limited distributions, such as the critically endangered mountain pygmy possum (*Burramys parvus*) in the Australian Alps, and the tiny honey possum (*Tarsipes rostratus)* that is only found in southwestern Australia.
- Possums are not pests, nor are they feral species. They are protected native, Australian marsupials.
- Possums are marsupials, meaning females have a pouch in which they carry their young (joeys).
- Common brushtail and common ringtail possums are the most well adapted species to urban environments. Being nocturnal, both species use tree hollows to rest in during the day, however ringtail possums also build nests, called dreys.
- Possums are an important part of Australia's biodiversity and efforts to reintroduce some possum species into areas where they have suffered localised extinctions are occurring nationally. The Australian Wildlife Conservancy has successfully reintroduced the common brushtail possum to sanctuaries in the WA wheatbelt, and a sanctuary in central Australia where it experienced serious population decline.
- Several possum species also play roles in the seed dispersal and pollination. One study found that brushtail possums were the only animal that dispersed the seeds of a native cycad species (Hall and Walter 2013) and honey possums are known to pollinate many flowering plants such as *Banksia* in southwestern Australia (Brundrett et al., 2024).

Possum-human interactions

- Interactions and potential conflict between humans and possums have increased with the spread of urban development (Hill et al., 2007).
- Residential gardens represent a large portion of overall green space in urban areas, meaning possums often seek food or shelter in private gardens.
- Common brushtail possums in particular may also den in human-made structures, such as roof cavities.
- Due to the high density and widespread nature of these possums in urban and peri-urban areas, they are particularly vulnerable to human-related threats such as cat or dog attacks and being hit by cars (Taylor-Brown et al. 2019).
- Surveys have found that a majority of Australians agree possums are welcome on their properties and that most also agree possums have a right to exist in the urban environment (Hill et al., 2007; Russell et al., 2011).

- Diet and feeding:
  - The diets of possums vary across different species. Many are herbivories or omnivores, some species browse eucalyptus, eat nectar or even insects. The green ringtail possum (*Pseudochirops archeri*), from the north Queensland rainforest, has a unique and highly specialised diet of only fig leaves.
  - As for any wildlife (see Wildlife Victoria Fact Sheet), it is not recommended that people feed possums because:

        - Their specific dietary requirements mean they can suffer nutritional deficiencies if fed inappropriately e.g. human food
        - They could become reliant on food you provide or learn to approach people for food
        - Feeding can encourage possums into areas where conflict is more likely e.g. with pets
        - Feeding can disrupt normal possum behaviour and increase population density that may result in territorial fighting.
- Trapping and relocation – welfare concerns and legal considerations:
    - It is important that homeowners check the legislation and permits required in their state or territory prior to engaging in possum removals on their property (see resources below). Possums are protected species and, in many states, it is illegal to trap and relocate a possum without a license.
    - Trapping is a stressful experience for possums and research has found that most relocated possums will die within a week of being relocated (https://www.wildlife.vic.gov.au/managing-wildlife/possums).
    - For this reason, community education and awareness on preventing possums gaining access to roof spaces, and learning how to co-exist alongside possums is crucial.

Buruli ulcer

- General Information:
    - Buruli ulcer is caused by the bacteria *Mycobacterium ulcerans*, *which* causes slow-growing skin ulcers in humans and some Australian mammals.
    - The majority of human Buruli ulcer disease in Australia is seen in Victoria and Far North Queensland. While annual case numbers have been rising in Victoria over the last twenty years (Ravindran et al., 2025; Tai et al., 2018), human infection with this bacteria is still relatively uncommon Buruli ulcer has also been reported in the NT, and a small number of cases have recently occurred on the south coast of NSW.
- Buruli ulcer in Australian Wildlife:
    - Several native Australian wildlife species, as well as domestic pets, have also been affected by Buruli ulcer in regions where the disease is known to affect people (Elsner et al., 2008; Mitchell et al., 1987; O'Brien et al., 2011, O'Brien et al., 2013; Zyl et al., 2010).
    - Common ringtail possums appear to be particularly severely affected by this disease (O'Brien et al., 2014), often with multiple large ulcers on the face, feet and tail. It is likely that this disease has a negative impact on the welfare of affected possums (Hobbs, Loukopoulos, et al., 2024; Hobbs, Porter, et al., 2024).
    - The bacteria has not been found in possum urine (O'Brien et al., 2014), and while it is present in possum faeces, more research is needed to determine the importance of this in disease transmission.
    - There is one published report of a person developing a Buruli ulcer subsequent to being bitten by a common ringtail possum (Xu et al., 2022). As for any wildlife, handling should be conducted by qualified and suitably training individuals. If you must handle possums, protect yourself and the animal by using appropriate PPE and calling a wildlife professional for advice.
- Transmission & Prevention:
    - The mechanisms by which animals and people become infected with this environmental bacteria are not completely understood, but it is likely that mosquitoes are involved in transmission in Victoria (Mee et al., 2024). Therefore,

avoiding insect bites is important for protecting yourself against Buruli ulcer. See *Preventing mosquito bites* (Vic Health) for more information: https://www.betterhealth.vic.gov.au/health/healthyliving/mosquitoes-can-carry-diseases

- Additional protection measures include simple personal protective and hygiene practices including wearing gloves, long-sleeved shirts and trousers when working outdoors and promptly washing, apply antiseptic and covering any scratches or cuts. For more information refer to local health authority recommendations.

Possums & public health: Tularaemia & other diseases

- Possums, like many Australian marsupials, are vulnerable to a number of diseases that can impact their welfare and potentially affect people and other animals.
- Tularaemia is a very rare but potentially serious disease, resulting from infection with the bacteria *Francisella tularensis*. This infection in humans may be linked to close contact with common ringtail possums (Jackson et al., 2012). Wildlife carers and those working closely with Australian wildlife should be aware of tularaemia and take appropriate hygiene and infectious control precautions. For further information see the Wildlife Health Australia Fact Sheet on Tularaemia.

Resources

Buruli ulcer resources:

- National Health Direct Australia - https://www.healthdirect.gov.au/buruli-ulcer
- NSW Health - https://www.health.nsw.gov.au/Infectious/factsheets/Pages/buruli-ulcer.aspx
- Vic Health - https://www.betterhealth.vic.gov.au/health/healthyliving/Buruli-ulcer
- WHA Fact sheet - https://wildlifehealthaustralia.com.au/Portals/0/ResourceCentre/FactSheets/Mammals/Buruli_ulcer_and_Australian_wildlife.pdf
- Beating Buruli Ulcer - https://www.health.vic.gov.au/infectious-diseases/beating-buruli-in-victoria

Other Resources:

- What to do if you see sick, orphaned or injured wildlife (WHA) - What_to_do_if_Sick_injured_dead_wildlife.pdf
- Threatened Species Recovery Hub 2019: *Australia's Possums and Gliders* https://www.nespthreatenedspecies.edu.au/news-and-media/latest-news/australia-s-possums-and-gliders

Possum relocation – state and territory government resources and regulations:

- Vic - https://www.wildlife.vic.gov.au/managing-wildlife/possums
- NSW - https://www.environment.nsw.gov.au/licences-and-permits/wildlife-licences/catch-and-release-licence/possum-catch-and-release-licences
- ACT - https://www.act.gov.au/environment/animals-and-plants/animals/wildlife-management/possums
- Qld - https://www.qld.gov.au/environment/plants-animals/animals/discovering-wildlife/possum/about-possums
- NT - https://nt.gov.au/environment/animals/possums-and-your-home
- WA - https://www.dbca.wa.gov.au/media/2146/download

- SA - https://www.environment.sa.gov.au/topics/animals-and-plants/living-with-wildlife/possums/managing-possums

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This document was written by Shana Ahmed (Wildlife Health Australia) and Nila Taylor (University of Melbourne, MVSc Candidate) with input from expert reviewers.