

COVID-19 (SARS-CoV-2) and Australian wildlife

Biosecurity information for people working or interacting with wildlife

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Background

There have been no detections to date of SARS-CoV-2 (the virus causing COVID-19) or closely related viruses in Australian wildlife. However, human to animal transmission of SARS-CoV-2 has occurred in some mammalian species overseas, including free-ranging wildlife (see the [WHA COVID-19 \(SARS-CoV-2 virus\) Factsheet](#) (WHA 2022a) and [WOAH website](#) (WOAH 2022) for more information). It is safest to assume that any mammalian wildlife species may have the potential to be infected with SARS-CoV-2 following close exposure with an infected human, under similar situations to those described as risky for human-to-human transmission. Preventing transmission to wildlife is important to protect wildlife populations, and to avoid the potential establishment of a wildlife reservoir of SARS-CoV-2, which could have implications for human health. Anyone interacting with mammalian wildlife should take appropriate measures to minimise the likelihood of this occurring.

Information on COVID-19 and Australian wildlife is provided in the [WHA fact sheet](#), and a risk assessment for COVID-19 and bats is published on the [WHA website](#) (WHA 2022b). Further information on COVID-19 and animals is provided by the [Australian Veterinary Association](#) (AVA 2022) and [World Organisation of Animal Health](#) (WOAH 2022). Links to other key resources are on the [WHA website](#).

The information in this document is based on current knowledge. Wildlife Health Australia (WHA), in collaboration with government and non-government stakeholders, is continually assessing information on the COVID-19 (SARS-CoV-2) situation, and the document will be updated as required.

Precautions when interacting with Australian wildlife

The following advice is provided as a guide and relates to minimising the risk of human to wildlife transmission of SARS-CoV-2. The first section provides general advice for all people interacting with mammalian wildlife. The second section provides additional specific advice for wildlife rehabilitators or others with Australian mammalian wildlife in temporary captivity (such as wildlife researchers).

The risk of human to wildlife transmission of SARS-CoV-2 will vary depending on specific circumstances, so individuals should assess their own risk and if deemed higher (e.g. a large number of animals in care resulting in a higher rate of interaction; during periods of high COVID-19 infection rates; people who are unvaccinated), then higher level precautions to prevent transmission should be taken. Where practicable, it may be appropriate to restrict, postpone, cancel or modify activities until the risk is reduced. In all cases, animal welfare and human safety should not be compromised.

To reduce the risk of injury and exposure to other diseases, only people who are trained and using appropriate personal protective equipment (PPE) should handle wildlife. Those handling bats should also be rabies-vaccinated to protect against Australian bat lyssavirus, as per [public health agency guidelines](#). Appropriate general precautions are always recommended before, during and after contact with wildlife and their food, supplies and excreta (see [National Wildlife Biosecurity Guidelines](#) (WHA 2018)).

General advice for people interacting with mammalian wildlife

- You must follow the directions given by government Health, Biosecurity and Environmental authorities in your jurisdiction.
- Protect wildlife by protecting yourself. Follow the [public health guidelines](#) (DHAC 2022d) for minimising COVID-19 transmission risk between other people and yourself.
 - Keep your COVID-19 vaccinations and boosters up to date. The Australian Government advises that getting vaccinated is the best way to keep you, your family, friends, and the community safe ([DHAC 2022b](#)). Getting vaccinated may also help protect wildlife in your care. The online [Vaccine Clinic Finder](#) can help you find and book a COVID-19 vaccine appointment.
- If you have [COVID-19 like symptoms](#) (DHAC 2022a) or test positive to COVID-19 you should avoid or minimise close contact with mammalian wildlife.
- Activities that involve being close to or directly handling mammalian wildlife can increase the chance of people with COVID-19 spreading the virus to animals.
 - Consider whether it is practicable and appropriate to restrict, postpone, cancel or modify activities until the risk is reduced.
 - Where it is appropriate or necessary to proceed with activities, limit the number of people to the minimum required to safely complete them.
 - Avoid unnecessary direct contact with wildlife. Where practicable, apply physical distancing by keeping at least 1.5m away from wildlife. Very close contact (such as blowing breath on an animal to encourage it to move) should never occur.
- Wherever possible, apply the same precautions recommended for prevention of human to human transmission to your interactions with wildlife, even if you do not have any symptoms.
 - Practice [good hygiene](#) (DHAC 2022d):
 - Wash your hands with soap and water for at least 20 seconds and dry thoroughly BEFORE AND AFTER interacting with wildlife, their food, excreta, equipment and/or enclosures. Hand sanitiser (gel with 60 to 90% ethanol concentration) can be used where soap and water are not available.

- Avoid touching your eyes, nose and mouth.
- Cough and sneeze into your elbow.
- Clean equipment, bedding and other linens, enclosures, and surfaces regularly (see [‘Cleaning and disinfection’](#) below).
- Where practicable, wear dedicated clothing when interacting with wildlife. Otherwise, cover your day-to-day clothing while working with wildlife (e.g. wear an apron that is only used for that purpose). Wash clothing regularly (see [‘Cleaning and disinfection’](#) below).
- Routine use of face masks (N95 or equivalent) is strongly recommended if you are unable to maintain physical distancing between yourself and the animal (i.e. at least 1.5 meters in a well-ventilated area). Make sure you know [how to use the mask](#) (DHAC 2022d) and dispose of it appropriately. Using a mask incorrectly can increase the risk instead of reducing it. If you wear a disposable specialised filtering mask (such as N95), do not use a valved mask as the valve allows unfiltered exhaled air to pass out.
- Well-ventilated or outdoor spaces reduce the risk of transmission of COVID-19 because infectious particles are more quickly dispersed ([WHO 2021](#)). Where practicable, work in a well-ventilated or outdoor area.
- Where practicable and consistent with the species ecology, individual mammals should be kept separated from each other (ideally a minimum of 1.5 meters).
- Additional specific advice for those interacting with free-ranging wild mammals in the field, such as wildlife researchers or ecological consultants, can be found on the [WOAH website](#).
- Existing general [biosafety and PPE protocols](#) (WHA 2018) for working with wildlife, including [specific recommendations for bats](#) (WHA 2020), should continue as normal.

Additional specific advice for wildlife rehabilitators or others with Australian mammalian wildlife in temporary captivity.

- If you care for wildlife, you should have a plan in place for the animals in your care in the event you become sick.
- Where possible, reduce the number of animals in care in individual homes.
- Where practicable and consistent with species requirements, house mammalian wildlife in outdoor enclosures with good ventilation.
- Minimise the number of people interacting with the mammalian wildlife in your care. For example, if you care for wildlife in your home, house them in a room or area that is physically separate from the general living spaces. Other household members should not enter this area.
- Do not allow contact between wildlife in rehabilitation and free-ranging wildlife, pets, or other domestic animals.
- If you have [COVID-19 like symptoms](#) (DHAC 2022a) or test positive to COVID-19, you should follow public health advice from your jurisdiction ([DHAC 2022c](#)). Contact your jurisdiction’s Environmental authority (contact details for your jurisdiction’s WHA Environment Representative can be found on the [WHA website](#)) to advise them that you have mammalian wildlife in your care, and that you are concerned about transmission risk. The WHA Environment Representative will liaise with Biosecurity and Health authorities as needed, to determine how the wildlife can be best cared for.
- Where mammalian wildlife has been exposed to a person with COVID-19 or [COVID-19 like symptoms](#) (DHAC 2022a):

- It is recommended that the animal(s) be isolated (separated from other unexposed mammals, managed with dedicated equipment etc) and remain in care for at least 14 days¹ (Meekins et al. 2021) from last exposure to a potentially infectious person unless advised otherwise by your Environmental or Biosecurity authority.
- Consider if it is appropriate and practicable to transfer COVID-19 exposed mammals to another suitable rehabilitator (such as a rehabilitator with no mammalian species already in care and appropriate, well-ventilated isolation facilities etc).
- If the exposed mammals are not transferred to another rehabilitator and continued contact is unavoidable, you should reduce the risk by wearing respiratory PPE including a face mask (N95 or equivalent is recommended), in addition to [standard PPE for handling wildlife](#) (WHA 2018).
- If any animal in your care becomes sick or dies after being exposed to COVID-19, contact your jurisdiction's [WHA Coordinator](#). Decisions on testing for SARS-CoV-2 in exposed or potentially clinically affected animals in care should be made in consultation with your Biosecurity authority.
- If an animal tests positive for SARS-CoV-2, it should be kept away from unexposed animals and human contact should be avoided ([WAOH 2022](#)). You should report the result to the Biosecurity authority in your jurisdiction. Biosecurity, Environmental, and/or Health authorities in your jurisdiction will provide further advice.

Cleaning and disinfection

- For advice on cleaning and disinfection:
 - Australian Government Department of Health: [Coronavirus \(COVID-19\) Information about routine environmental cleaning and disinfection in the community](#) (DHAC 2020)
 - Safe Work Australia: [Cleaning to prevent the spread of COVID-19](#) (SWA 2020)
- Clothing, bedding and other linens should be washed in a regular cycle wash using the warmest possible setting with normal washing detergent ([Safe Work Australia](#) (SWA 2020)).

This document was written by Wildlife Health Australia in consultation with a range of government and non-government stakeholders.

Note: The information in this document should not be relied on in place of professional veterinary or medical consultation. To the fullest extent permitted by law, Wildlife Health Australia will not be liable for any loss, damage, cost or expense incurred in or arising by reason of any person relying on information in this document. Persons should accordingly make and rely on their own assessments and enquiries to verify the accuracy of the information provided.

¹ Meekins et al. 2021 summarises the current findings to October 2021 regarding the susceptibility of domestic and wild animal species to experimental SARS-CoV-2 infection. In the studied non-primate species, 12 days was the maximum timeframe for infectious viral shedding post-challenge. Australian native species have not been included in such studies to date and there have been no detections of SARS-CoV-2 or closely related viruses in Australian wildlife, therefore a high level of uncertainty exists for extrapolation of this data to native wildlife in Australia. A conservative approach of 14 days isolation post-exposure is recommended.

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