



Flying-foxes and Microbats: A Public Health Communication Guide for Government Media Teams

Purpose

This guide aims to assist Government agencies to engage with media outlets, and to prepare media releases and other public communication on public health issues relating to Australian bats.

Context

Government agencies have an important responsibility to clearly communicate the disease risks associated with bats in Australia e.g. Australian bat lyssavirus (ABLV) and Hendra virus. The way in which this information is communicated should be carefully considered, as media content that is sensationalised or has incorrect messaging can contribute to negative public perceptions of wildlife. This can lead to persecution of wildlife and even pose a threat to conservation (Macfarlane & Rocha 2020; Welbergen & Armstrong 2017).

Balanced communication ensures relevant public health information is paired with information highlighting the importance of bats in the Australian ecosystem, and avoids language that stigmatises bats. This guide provides a checklist of communication do's and don'ts, words and phrases to avoid or focus on, and example statements for communication about Australia's bats.

When to use this guide?

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

- Australian bat lyssavirus (ABLV) or Hendra virus (HeV) reporting, including disease risk, testing outcomes and advice.
- Mass bat deaths e.g. related to heat stress, cold stress, or food shortages.
- Electrocution of bats on powerlines causing power outages.
- Movement of bats causing population influxes into urban areas.

Communication Checklist

This checklist can be used to encourage balanced communication by media outlets.

Don't...

- Use sensationalist language including “clickbait” style headlines.
- Use exaggerated claims or descriptions.
- Use fear inducing photos of bats, such as with bared teeth.
- Use fear inducing or emotional language particularly when discussing ABLV or other disease risks.
- Use “us versus them” language.
- Reinforce misconceptions about bats.

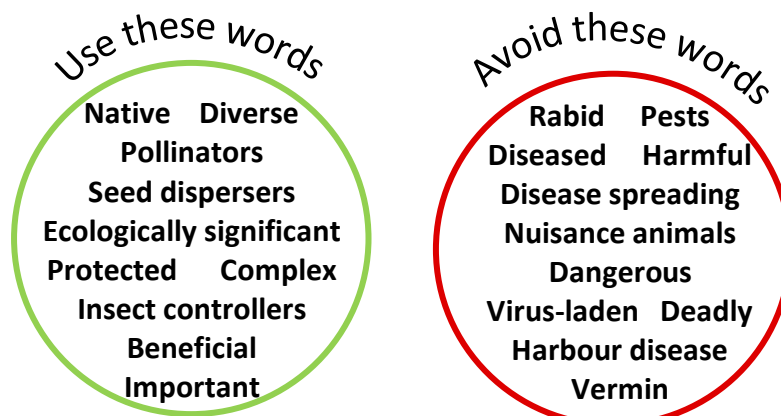
Do...

- 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 bats for management by trained and vaccinated people.
- Emphasise the ecological and economic benefit and importance of bats.
- Promote co-existence with bats.
- Address and dispel misconceptions and myths.
- Ensure any photos of people handling bats show correct use of [personal protective equipment](#) (e.g. gloves) and include a disclaimer that only trained and vaccinated people should handle bats.

Checklist Application Examples

- X** *“Hordes of potentially diseased flying-foxes can be seen flying across the town at night”.*
 - Uses negative, fear-inducing language.
- ✓** *“As they are nocturnal, flying-foxes can be seen flying at night seeking nectar and flowers. They pollinate and disperse seeds, which supports the growth and diversity of our native forests.”*
 - Provides explanation for flying-fox behaviour and highlights positive role they play.
- X** *“Residents are reminded to not touch bats as they might catch lyssavirus, a deadly disease”.*
 - Lacks information so can easily be misinterpreted.
- ✓** *“ABLV is only transmissible through a bite or scratch from an infected bat, or via a wound or mucous membranes. Residents are reminded to call wildlife professionals if they find a sick, injured, or orphaned bat and to never handle bats themselves. While lyssavirus should be taken seriously, infection with ABLV is rare and there is no risk if you avoid touching bats.*
 - Provides context for the disease, includes practical advice.
- X** *“Headline: Reasons why breeding bats are cause for concern”*
 - Clickbait style headline that correlates a negative emotion with breeding season, a normal part of the bat lifecycle.
- ✓** *“Headline: Pup season for flying-foxes begins: here’s what to remember”*
 - Informative and appealing headline. Can lead into discussion about baby bats (pups), information about how they breed and a reminder not to touch orphaned bats but to call a wildlife rescue group.

Bat Descriptors and Adjectives



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 groups
- University bat researchers/ecologists
- Australasian Bat Society ([link to contact details](#))

Useful Talking Points

Ecosystem Benefits

- Australia is home to 82 species of bat including flying-foxes and insectivorous bats (microbats).
- Due to their ability to fly long distances, flying-foxes provide long-distance pollination and seed dispersal for Australia's native forests. This contributes to plant genetic diversity, creating strong and adaptable forests (Bradford et al. 2022). Flying-foxes have been referred to as "gardeners of the night" due to their pollinating abilities.
- Compared to birds who typically leave their droppings while sitting in trees, flying-foxes disperse seeds via their droppings in flight. This means they play an important role in forest regeneration as seeds can be dispersed to tree-less areas as they fly between fragmented habitats (Moran et al. 2009).
- The seed dispersal capabilities of the spectacled flying-fox make it a key species in the maintenance and long-term stability of the Wet Tropics World Heritage Area in Queensland (Westcott et al. 2001).
- Due to the huge variety of insects in the diet of microbats, they are important for insect pest reduction in urban, rural and forested areas.

Human/bat Interactions

- Urbanised or human-modified environments can provide stable food sources for bats (Meade et al. 2021) as their natural habitats are increasingly destroyed or disrupted by human activity (Eby et al. 2023). These areas can become important foraging resources, which brings bats in closer proximity with humans and potentially increases the likelihood of human/wildlife conflict (Yabsley et al. 2021).
- Microbat roosting locations vary depending on the species and can include caves, tree hollows or forest canopies. As their natural habitat declines or becomes compromised, microbats may seek alternative roosting sites including manmade structures such as culverts or tunnels (Gorecki et al. 2021). Disturbing roosts should be avoided.
- Microbats are on occasion also found in people's homes. Anyone concerned about microbats living in their property should contact their local wildlife rescue service for advice and remember to not attempt to handle bats themselves.
- Education is key to placing the risks associated with disease into perspective with the vital role that flying-foxes play in our ecosystem and our economy.
- A common misconception is that bats "swoop" people. Unlike birds, bats must drop and turn prior to take-off, which can be mistaken for swooping when people are nearby.
- In the event of a bat bite, scratch or other significant contact, seek medical attention URGENTLY. Bite or scratch wounds should immediately be washed thoroughly with soap and copious water for approximately 15 minutes and a virucidal antiseptic such as an iodine-based antiseptic applied. Bat saliva in the eyes or mouth should be rinsed out immediately and thoroughly with water.

Australian bat lyssavirus (ABLV)

- ABLV is closely related to, but distinct from rabies virus.
- ABLV can infect people and other mammals with a fatal outcome. Other than bats, ABLV infection has led to the deaths of three people and two horses in Australia.
- Whilst both flying-foxes and some insectivorous bats can carry ABLV, infection in the healthy wild population is rare – less than 1% of the bat population. ABLV infection is more common in sick, injured and orphaned bats. (See WHA's [Bat Stats](#) publications for more information)
- Humans cannot be infected with ABLV via bat urine, faeces or partially eaten fruit.

- ABLV is carried in the saliva of an infected bat, meaning a bite or scratch from an infected bat is the most likely pathway for transmission to occur. There is no infection risk if you follow the advice “don’t touch bats”. If you find an injured or sick bat, contact a wildlife care organisation or your local veterinarian.
- A person will not be exposed to ABLV by working or living nearby a bat colony.

Hendra virus

- Hendra virus has been recorded in flying-foxes, horses and humans but there is no evidence of direct Hendra virus transmission from bats to humans. Unvaccinated, infected horses are the only known source of Hendra virus risk to humans.
- There is comprehensive information available to horse owners to manage Hendra virus risk, e.g. [Queensland Government](#).

COVID-19

- Coronaviruses infect a wide range of bird and mammal species.
- Bats are considered likely to be the ancestral reservoir host of severe acute respiratory syndrome (SARS-CoV and SARS-CoV-2) but there has been **no** detection to date of these viruses in Australian bats or other wildlife.

Economic Benefits

- Insectivorous bats (microbats) are highly valuable to the agriculture industry as they consume pest insects.
- Farmers have been able to reduce their carbon footprint and economic costs by utilising microbats as a natural pest control agent to lower insecticide use (Smith & Watson 2018).
- A 2021 study estimated that insectivorous bats add \$63.3 million annual value to the Australian cotton industry through their consumption of the pest moth species *Helicoverpa armigera* (Kolkert et al. 2021).
- Learning to live alongside bats is Australia’s most economically viable way of ensuring water and food security.

Useful Resources

WHA resources:

- State and Territory Bat Lyssavirus Resources - https://wildlifehealthaustralia.com.au/Portals/0/ResourceCentre/BatHealth/All_States_ABLV_Resources.pdf
- Australian bat lyssavirus Factsheet - https://wildlifehealthaustralia.com.au/Portals/0/ResourceCentre/FactSheets/Mammals/Australian_Bat_Lyssavirus.pdf
- Hendra virus Factsheet - https://wildlifehealthaustralia.com.au/Portals/0/ResourceCentre/FactSheets/Mammals/Hendra_virus_and_Australian_Wildlife.pdf
- COVID-19 (SARS-CoV-2 virus) Factsheet – <https://wildlifehealthaustralia.com.au/Portals/0/ResourceCentre/FactSheets/PublicHealth/COVID-2019.pdf>
- Bat Stats - <https://wildlifehealthaustralia.com.au/Resource-Centre/Bat-Health>

ABS Resources:

- Australasian Bat Society - <https://www.ausbats.org.au/>
- ABS Bat Fact Sheets - <https://www.ausbats.org.au/bat-fact-sheets.html>

Other resources:

- Welbergen & Armstrong 2017: *Why we shouldn't be so quick to demonise bats* - <https://theconversation.com/why-we-shouldnt-be-so-quick-to-demonise-bats-87693>
- Lentini et al. 2020: *No, Aussie bats won't give you COVID-19. We rely on them more than you think* - <https://theconversation.com/no-aussie-bats-wont-give-you-covid-19-we-rely-on-them-more-than-you-think-137168>

Further communication resources:

- Macfarlane & Rocha 2020: *Guidelines for communicating about bats to prevent persecution in the time of COVID-19* - <https://doi.org/10.1016/j.biocon.2020.108650>
- Shapiro JT, Viquez-R L, Leopardi S, Vicente-Santos A, Mendenhall IH, Frick WF... Kingston T 2021: *Setting the Terms for Zoonotic Diseases: Effective Communication for Research, Conservation, and Public Policy* - <https://doi.org/10.3390/v13071356>

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