



AUSTRALASIAN BAT SOCIETY, INC.

ABN: 75 120 155 626

POSITION STATEMENT HENDRA VIRUS AND FLYING-FOXES

Background

All four species of flying-fox in Australia appear to be natural hosts of the rare Hendra virus. First discovered in 1994, this rare virus is not highly contagious and does not spread easily. Despite this in recent times there have been a number of “spillover” events, where the virus has infected horses and resulted in deaths of these valuable livestock. The mechanism of viral transmission from flying-foxes to horses is currently not known.

There is no evidence that the virus can be spread directly from flying-foxes to humans, but people working closely with infected horses may be infected by contact with bodily fluids from the horses. Seven people have been infected in this way and four of those people died as a consequence.

Because the consequences of Hendra transmission to horses and humans are potentially lethal, there is a significant perceived public health risk associated with Hendra virus. This concern has resulted in appeals from some sections of the community for the culling and control of flying-foxes. In addition to lethal control, requests have also been made for the moving of flying-fox camps away from urban communities.

ABS Position on Hendra Virus and flying-fox management

The Australasian Bat Society while understanding community concern opposes any management actions that may be inhumane or which could harm flying-foxes or their habitats.

While we acknowledge the recent research which has indicated that flying-foxes are probably the natural host of Hendra virus, we also need to reiterate the importance of these species to our natural environment and their threatened status. The ABS recognises that, whilst the consequences of infection in humans and domestic animals are potentially devastating, the prevalence of Hendra virus is very low and that it is not a highly infectious disease. With this in mind the ABS recommends the following research and management actions to reduce infection risk:

- Increased stress levels in flying-foxes may cause increased virus shedding and as such the ABS opposes methods such as camp disturbance or habitat destruction as a means of reducing local flying-fox populations. There is no evidence for direct transmission of Hendra

virus from flying-foxes to humans. On this basis the ABS opposes flying-fox management or control proposals that cite Hendra virus risk management in urban areas as a reason for action.

- Ingestion of fresh flying-fox bodily fluids (e.g. urine, faeces, and birthing fluids) by horses browsing under flying-fox feed trees is a possible source of viral transmission from flying-fox to horse. As such the ABS strongly recommends that horse owners take action to prevent horses from resting and browsing under paddock trees during flowering or fruiting periods when flying-foxes are likely to visit those trees.
- The ABS recognises the poor understanding of ecological, physiological and other drivers that result in spill-over of Hendra virus from flying-foxes to horses and supports high quality empirical science to investigate these drivers. It is hoped that such research will develop non-harmful methods to reduce, minimise or eradicate the risk of bats transmitting Hendra virus to livestock and humans.
- The ABS acknowledges the potentially lethal impacts of Hendra virus infection in humans and horses and accepts that the mode of transmission of Hendra virus from flying-foxes to horses remains unknown. The ABS encourages high-quality scientific research into the mode of transmission between species and supports the research and development of preventative vaccines and post-exposure treatments for use in humans and domestic animals.
- The ABS acknowledges the possible involvement of other animal species as intermediate hosts of the Hendra virus and accepts the possibility that dogs, cats and rodents that live in close proximity to horses could be involved. As such the ABS supports research to investigate potential pathways for the virus through other domestic and native species.

Flying-foxes and the Australian environment

The ABS recognises that Hendra virus is a serious issue that has caused the tragic loss of human lives, valuable livestock and companion animals. However we also believe the ecosystem values that flying-foxes provide to the Australian environment has not been adequately represented in the public debate on Hendra virus management. As such the ABS would like to make the follow points:

- Flying-foxes play a keystone role in maintaining biodiversity and structure in natural vegetation communities across Australia. Many vegetation communities rely on their fruit and blossom feeding habits to assist with pollination and seed dispersal.
- The ABS considers that loss of natural habitat due to human population expansion and development activities is a major cause of declining native species populations and a key threatening process for many rare, vulnerable and endangered species. It is also these factors which the ABS considers to be key drivers of increasing contact and conflict between humans and native species such as flying-foxes.
- The ABS recognises the importance of protecting and managing dwindling habitat resources in urban and rural areas for the conservation of all native species, and opposes any measures that deliberately remove or impair the function of those resources as flying-fox habitat.
- The ABS recognises the migratory behaviour and other long distance movements in flying-fox species, and supports legislation and management actions that account for population connectedness across state boundaries.

What is the ABS?

The Australasian Bat Society (ABS) is a not-for-profit organisation, registered under the NSW Associations Incorporation Act 1984 through the NSW Department of Fair Trading. Our aim is to promote the conservation and study of bats in Australasia. ABS membership is wide-ranging and includes research scientists, natural resource managers, students, wildlife carers and members of the general public. Anyone with an interest in bats or conservation is welcome to join the Society. For more information on the ABS and membership, go to our web site at <http://ausbats.org.au/>.

Key information sources:

“Hendra Virus Infection”; webpage at Queensland Health website
http://access.health.qld.gov.au/hid/InfectionsandParasites/ViralInfections/hendraVirusInfection_fs.asp

“Research into Hendra virus: the story so far”; webpage at Queensland Department of Agriculture, Fisheries and Forestry website. http://www.daff.qld.gov.au/4790_11599.htm

Hall, L. and Richards, G. (2000). “Flying Foxes: fruit and blossom bats of Australia”. UNSW Press; Sydney.