

Zoonoses of Australian native mammals

Fact sheet

Introductory statement

A literature survey identified 1407 recognised species of human pathogen, 58% of which are zoonotic. Of these 177 are regarded as emerging or re-emerging, with 73% of these being zoonotic (Woolhouse and Gowtage-Sequeria 2005).

Prevention of infection with zoonotic diseases generally involves common sense procedures such as washing hands with soap after handling animals or their by-products, and before eating or smoking. There should be no oral contact with animals and only properly cooked meat should be consumed.

Table 1. Common zoonoses in Australian native wildlife

Pathogen	Species affected	Main routes of infection of humans	Clinical symptoms in humans	Treatment	Prevention
Lyssavirus	Bats	Bite, scratch	Neurological, death	None	Post-exposure management; PPE; rabies vaccination.
Hendravirus	Bats	Inhalation via infected horse	Neurological, death	None	PPE when treating or necropsying suspect horses
Ross River Virus	Macropods	Mosquito bite	Arthralgia, lethargy, rash, headache	Symptomatic	Avoid mosquito bites
<i>Leptospira</i> spp.	Rodents, possums, platypuses	Contact with urine	Flu-like	Antibiotics	Hand hygiene

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<i>Salmonella</i> spp., <i>Campylobacter</i> spp., <i>Giardia</i> spp., <i>Cryptosporidium</i>	Mammals, reptiles	Ingestion	Diarrhoea	Supportive, antibiotics, antiprotozoals	Hand hygiene
<i>Coxiella burnetii</i>	Macropods, bandicoots	Inhalation	Flu-like	Supportive, antibiotics	Vaccination
<i>Toxoplasma gondii</i>	Cats (DH) Marsupials (IH)	Ingestion via cat faeces or under-cooked meat	Abortion, birth defects	None	Avoid cat faeces. Cook meat properly
Dermatophytic fungi	All mammals	Contact	Scaling, hair loss	Topical antifungals	Hand hygiene
<i>Angiostrongylus cantonensis</i>	Rodents (DH) Snails, slugs (IH)	Ingestion	Meningitis	Anthelmintics	Hand hygiene Avoid snail/slug ingestion, food hygiene
<i>Echinococcus granulosus</i>	Dingoes (DH) Macropods (IH)	Ingestion	Abdominal pain. Cysts in various organs	Surgery	Hand hygiene
<i>Sarcoptes scabiei</i>	Wombats, koalas	Contact	Rash, pruritis	Topical acaricides	Hand hygiene

DH: Definitive Host

IH: Intermediate Host

PPE: Personal Protective Equipment

Conclusion

As human settlements continue to expand, encroaching further into wildlife habitat and increasing human contact with other species, the number of recognised zoonotic diseases will likely continue to rise.

References and other information

McManus TJ (1994) Australian wildlife and their role in zoonotic disease. In: *Wildlife*. Proceedings 233 of the Post Graduate Foundation in Veterinary Science, Sydney p. 41-55.

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Vogelnest L, Woods R (2008) *Medicine of Australian Mammals*. CSIRO Publishing, Collingwood.

Woolhouse, MEJ, Gowtage-Sequeria, S (2005) Host range and emerging and reemerging pathogens. *Emerging Infectious Diseases* **11**, 1842-1847.

To provide feedback on this fact sheet

We are interested in hearing from anyone with information on these conditions in Australia, including laboratory reports, historical datasets or survey results that could be added to the National Wildlife Health Information System. If you can help, please contact us at admin@wildlifehealthaustralia.com.au.

Wildlife Health Australia would be very grateful for any feedback on this fact sheet. Please provide detailed comments or suggestions to admin@wildlifehealthaustralia.com.au. We would also like to hear from you if you have a particular area of expertise and would like to produce a fact sheet (or sheets) for the network (or update current sheets). A small amount of funding is available to facilitate this.

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