

ANIMAL HEALTH EMERGENCIES IN AUSTRALIA: WHAT ABOUT WILDLIFE?

TIGGY GRILLO

T. Grillo, Australian Wildlife Health Network, PO Box 20, Mosman NSW 2088.



Further information on management of animal health and animal health emergencies in Australia can be found in the Animal Health in Australia report, which is produced annually by Animal Health Australia and is available online (www.animalhealthaustralia.com.au/programs/)

Information on Australia's Biosecurity activities can be found on the Australian Government Department of Agriculture's website (www.daff.gov.au)

Introduction

Australia is fortunate to be free of most of the serious diseases that affect animals in other parts of the world. This favours our unique wildlife, environment, biodiversity, human health, domestic animal health, farm productivity, trade and economy.

Australia's geographic isolation provides a natural quarantine barrier to disease entering Australia. Australia's bio security system also protects our unique environment and animal health status. In this paper, 'bio security' refers to preventive measures and systems designed to reduce the risk of transmission of pests and infectious diseases. Animal bio security activities range from monitoring for disease via surveillance programs to putting in place specific protocols to prevent transfer of diseases between animals or animal facilities (e.g. cleaning of equipment between animals, isolation of sick animals, dedicated clothes for animal handlers). In addition to surveillance, there are preparedness programs and agreed response

plans which aim to prevent, respond to, and recover from pest and diseases outbreaks when they occur. Animal bio security activities assist in managing the negative consequences of pests and diseases to the environment, human health and the economy.

Wildlife health and bio security is an important global issue [1-4]. Increased awareness and efficient wildlife health monitoring systems can assist in the detection of new and emerging diseases which could have serious implications for biodiversity, human health and domestic animal health [2, 5, 6].

This presentation aims to outline the systems which are in place in Australia for managing animal health (including wildlife) by outlining briefly our national biosecurity systems including disease surveillance and preparedness programs and agreed response plans specifically in place for an emergency animal disease event.

How does Australia maintain its animal health status?

In Australia, animal and wildlife health issues are managed at both state and territory level as well as at a national level. This requires a well coordinated national framework for managing animal health and animal health emergencies. This includes communication and cooperation between all levels of government and in partnership with industries and other stakeholders, including Animal Health Australia and the Australian Wildlife Health Network.

Nationally, the Australian Government is responsible for quarantine at the Australian border and international animal health matters. For example, when arriving in Australia some of you would have taken notice of the quarantine systems we have in place to safeguard our plant and animal health status. This is largely managed by the Australian Department of Agriculture.

State and territory governments are responsible for disease prevention, response outbreak and disease eradication (removal of a disease from the animal population) within their state and territory boundaries. Each state and territory has its own legislation to manage animal health, such as the legislation that requires that important listed animal diseases (notifiable diseases) must be reported immediately to the relevant authority.

Legislation in Australia governs animal health and supports bio security measures against emergency animal diseases in Australia and includes Commonwealth legislation, primarily the Quarantine Act 1908 and Export Control Act 1982, but also the Imported Food Control Act 1992.

Surveillance Programs

Ongoing surveillance is important to maintaining Australia's favourable animal health status and the early detection of animal disease emergencies. Surveillance data and information from a range of surveillance activities is integrated and supported by the National Animal Health Information System (NAHIS), which include wildlife disease surveillance coordinated nationally through AWHN,

Some examples of Australia's surveillance programs include:

- Northern Australia Quarantine Strategy (NAQS)
- Avian Influenza Wild Bird Surveillance System
- National Arbovirus Monitoring Program (NAMP)
- Australian Bovine Tuberculosis Surveillance Project
- Bio security Guidelines

Bio security Protocols and Guidelines

Effective bio security is extremely important in reducing the risk of introduction or spread of animal diseases. For example, Australia's National Zoo Bio security Manual was recently published¹ to document and guide best practice in zoo bio security. The manual was developed as a cooperative initiative by the zoo industry, the AWHN and the Australian Department of Agriculture. Designed as an industry resource, the manual can be used by individual zoos to gauge their own bio security requirements and to develop bio security plans suitable for their particular circumstances. Although these guidelines have been developed specifically for zoos, including

¹ www.daff.gov.au/animal-plant-health/pests-diseases-weeds/biosecurity/animal_biosecurity/manuals

their wildlife hospitals, it outlines useful guiding principles for any facility holding wildlife.

Additional bio security resources have been developed by governments (www.daff.gov.au/animal-plant-health/pests-diseases-weeds/biosecurity), the veterinary profession (www.ava.com.au/biosecurity-guidelines) as well as livestock industries (www.farmbiosecurity.com.au).

What is an Emergency Animal Disease (EAD)?

An EAD is a disease that is likely to have significant effects on livestock – potentially resulting in livestock deaths, production loss, and in some cases, impacts on human health and the environment.

What is the Emergency Animal Disease Preparedness (EADP) Program²

Development of Australia's preparedness for and response to EADs is coordinated through the EADP Program managed by Animal Health Australia (AHA). The main objective of the program is to ensure that Australia is well prepared to manage and respond to an EAD outbreak. When outbreaks occur, the Program enables Australia to mount a rapid and effective response with minimal disruption to the affected industries, and to limit environmental impacts.

Most EAD responses in Australia are funded and coordinated nationally through a pre-agreed arrangement between the Australian Government, state and territory governments and affected livestock industries to ensure a successful outcome, the Emergency Animal Disease Preparedness Agreement (EADRA).

What is Australian Veterinary Emergency Plan (AUSVETPLAN)?

AUSVETPLAN³ is the national emergency planning framework that contains a set of manuals setting out the specific roles,

² Animal Health Australia has collated some FAQs on the EADP which is available online: <http://www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/EADRA-FAQs1.pdf>

responsibilities and policies to be followed by all agencies in an EAD response. AHA manages the process of review, approval and publication of these manuals on behalf of governments and relevant industries.

AUSVETPLAN includes a number of specific disease manuals and operational procedures.

AUSVETPLANS specific to wildlife diseases include:

- Wild Animal Response Strategy - Operational Procedures Manual
- Australian Bat Lyssavirus - Disease Strategy

Wildlife and Emergency Diseases

There is an increasing awareness of the risks of emerging disease and the role of wildlife, which is prompting interest in a more integrated approach to wildlife health and biosecurity activities in Australia.

The Wildlife and Exotic Disease Preparedness Program (WEDPP) is a joint program of the Australian Government and state and territory governments. Funding provided through the program aims to improve Australia's EAD preparedness through the development of practical field strategies to monitor, prevent, control or eradicate emergency diseases in wildlife and feral animals that threaten Australia's livestock industries. In recent years, the program has focused on improving wildlife disease surveillance.

The Australian Wildlife Health Network (AWHN) is an unincorporated, not-for-profit organisation that comprises a network of government and private stakeholders across Australia. The AWHN's mission is to promote and facilitate collaborative links in the investigation and management of wildlife health in support of human

³ www.animalhealthaustralia.com.au/programs/emergency-animal-disease-preparedness/ausvetplan/

and animal health, biodiversity and trade. Core business includes improving surveillance and surveillance tools for wild and feral animals, and to improve the management of wildlife health information. (see paper “The Role of Carers in National Wildlife Health Network” for more on the AWHN).

Australia recognises the importance of monitoring wildlife health. The AWHN is constantly on alert for emerging and emergency diseases in wildlife. One of the core activities of the AWHN is to notify relevant authorities of outbreaks of disease in wildlife, such as wild bird mortality events.

Acknowledgement

The author would like to acknowledge the valuable contribution from the Australian Government Department of Agriculture in the preparation of this paper.

References

1. Jones KE, Patel NG, Levy MA, Storeygard A, Balk D, Gittleman JL, Daszak P: Global trends in emerging infectious diseases. *Nature* 2008, 451:990-993.
2. Mörner T, Obendorf DL, Artois M, Woodford MH: Surveillance and monitoring of wildlife diseases. *Revue Scientifique et Technique-Office International des Epizooties* 2002, 21:67-76.
3. The International Bank for Reconstruction and Development / The World Bank: Towards a One Health Approach for

Controlling Zoonotic Diseases. In People, Pathogens and Our Planet, vol. 1, edition; 2010.

4. Daszak P, Cunningham AA, Hyatt AD: Emerging infectious diseases of wildlife--threats to biodiversity and human health. Science 2000, 287:443-449.
5. Belant JL, Deese AR: Importance of wildlife disease surveillance. Human-Wildlife Interactions 2010, 4:165-169.
6. Training Manual on Wildlife Diseases and Surveillance [http://www.oie.int/fileadmin/Home/eng/International_Standard_Setting/docs/pdf/WGWildlife/A_Training_Manual_Wildlife.pdf]

TIGGY GRILLO has been working for the Australian Wildlife Health Network since May 2009 and coordinates the collation of national wildlife health surveillance dataset. She also provides coordination & communication on key national disease incidents with which involve wildlife as part of their ecology. Her role also includes facilitation of linkages between key wildlife health stakeholders to improve communications. Tiggy graduated from Glasgow University Veterinary School in 1999 where she also completed her PhD in molecular parasitology. Previously, Tiggy has been involved in bird of prey field surveys in the U.S.A. and compiling a sea turtle rehabilitation manual for the U