



ABN: 26 936 504 338

Mr. Roger Beale, Chairman  
Quarantine and Biosecurity Review Panel  
Department of Agriculture, Fisheries and Forestry,  
GPO Box 858, Canberra, ACT 2601  
16 April 2008

Dear Mr. Beale,

We have enclosed comments from the Wildlife Disease Association Australasian Section on the Quarantine and Biosecurity Review Issues Paper for your consideration.

The Wildlife Disease Association (WDA) is an international multidisciplinary scientific association. Our mission is to acquire, disseminate and apply knowledge of the health and diseases of wild animals in relation to their biology, conservation and interactions with humans and domestic animals. WDA was founded in 1951 in North America and the Australasian Section had its first conference at Australian National University in 1975. In 2005 we convened the International WDA conference, Cairns and the Fenner Conference on the Environment Wildlife Health Workshop, Canberra. Our business office is in North America and other geographic Sections are the Nordic, European, and African and Middle East Sections. Our website is <http://www.wildlifedisease.org/>

The focus of our comments relate to the lack of baseline data on wildlife diseases in Australia hence knowledge of endemic diseases, weakness of our wildlife disease surveillance system, and poor knowledge and understanding of wildlife diseases by staff in Federal, State and Territory governments. Wildlife has no effective industry for cost sharing and wildlife disease funding has traditionally fallen through the gaps between environment and natural resources, agriculture, and human health (wildlife can be reservoirs of zoonotic infections.) However, the development of the Australian Wildlife Health Network in 2002 with funding from the Federal Department of Agriculture Fisheries and Forestry for 2-3 staff, and State and Territory coordinators (inadequately resourced) provides an excellent and efficient skeleton framework for wildlife disease management in Australia. The AWHN now needs adequate resourcing at all levels. This will strengthen environmental health and wildlife disease issues identified in the Australian Quarantine and Biosecurity Review. (See below for details.)

We have included important recommendations for Research. There is evidence that Quarantine and Biosecurity have failed wildlife biodiversity security as four new diseases have appeared and may be established.

Thank you for considering our comments. We are happy to meet to discuss issues concerning biodiversity, environmental health and wildlife disease further.

Yours sincerely,

*Pam*

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**Quarantine and Biosecurity Review Issues Paper 14 March 2008.  
From the Wildlife Disease Association Australasian Section.**

Website: <http://www.wildlifedisease.org/index.html>

Our comments focus on environmental health and wildlife disease issues. These are affected by quarantine and biosecurity as legal and illegal importations (and wildlife migrations and changes in distribution of invertebrate disease vectors, including entry of new species from the north, due to climate change) can introduce diseases that impact Australia's biodiversity and human health.

**Comments we request you address:**

- **There is a massive lack of baseline data on diseases of Australian wildlife. This information is required to determine what endemic diseases are present** (page 4, Box 1, Endemic pests and diseases). This is because there is very little investigation and surveillance of wildlife diseases by State and Territory Environment, Conservation and Natural Resource, and Health (E, C&NR, &H) Departments. It is difficult to obtain funding for disease diagnosis in wildlife mortality events. Recently, funds have been available to test for and rule out Avian Influenza and Newcastle Disease viruses following major avian die-offs. The cause of Kangaroo Blindness, a clinical condition known for decades, was determined to be an orbivirus transmitted by midges only after an overseas trading partner asked if Kangaroo Blindness could affect the sheep meat they imported. The source (animal, plant, soil, water) of the suspected human zoonosis causing life-threatening myositis due to a parasitic nematode remains unknown despite human cases in 1994, 1996, 2004, 2005 and 2006.
- **There is lack of awareness, understanding and expertise about wildlife diseases and health** in the Federal Department of Environment Water Heritage and the Arts (DEWHA) and in State and Territory E, C&NR, &H Departments. There may be a lack of expertise about wildlife disease on the Eminent Scientists Group (page 8, point 34).
- Relevant international information on wildlife diseases can be found at: (Appropriate level of protection, page 6, point 25.)
  - a. The World Animal Health Organisation, also known as the Office International des Epizootics, Working group on Wildlife Diseases [http://www.oie.int/wildlife/eng/en\\_wildlife.htm](http://www.oie.int/wildlife/eng/en_wildlife.htm) Infectious Diseases of Wildlife: detection, diagnosis and management. Co-ordinated by R.G. Bengis *Scientific and Technical Review*, Vol. 21 (1), April 2002 and Vol. 21 (2), August 2002 [http://www.oie.int/eng/publicat/rt/A\\_rt21\\_1\\_et\\_2.htm](http://www.oie.int/eng/publicat/rt/A_rt21_1_et_2.htm)
  - b. UK Department of Environment Food and Rural Affairs, Consultation on working towards a Wildlife Health Strategy, July 2007.
- **At the Pre-border level Australia needs to have up to date knowledge of diseases risks** for wildlife being imported, smuggled or undergoing migration. The Quarantine and Biosecurity Continuum, page 7, point 30.
- **Post-border measures for wildlife disease and biodiversity risks and threats have not been adequate.** The Australian Federal government works with State and Territory governments and industry (presumably, zoos, exotic pet trade, aviculturalists, herpetologists) to coordinate emergency responses to disease incursions. We understand this response has been inadequate for legally imported psittacines that may carry Pacheco's disease (an exotic herpes virus that causes high mortality in parrots and cockatoos). For many years there has

also been concern that Inclusion Body Disease of Boids (a disease that can cause death in snakes) may have been imported during reptile imports (or smuggling) and be a threat to biodiversity. More recently Internal Papillomatous Disease has spread and Proventricular Dilatation Disease is appearing in spite of the ban on psittacine importations. However, there has been little action by the responsible agencies. The Quarantine and Biosecurity Continuum, page 7, point 32.

- To ensure high standards of quarantine and biosecurity involving wildlife disease threats DEWHA and State and Territory E, C&NR, & H Departments, and the Eminent Scientists Group need to be actively involved. These groups all **need staff informed about wildlife disease and adequate wildlife health resources**. Commonwealth Arrangements, page 7, page 8, point 34, 35, 36.
- **How is cooperation and shared responsibility managed between governments, industry and the public for wildlife diseases?** Shared responsibility, page 9, point 37. The Australian Wildlife Health Network (AWHN) <http://www.wildlifehealth.org.au/AWHN/home.aspx> and its State and Territory coordinators can play an important role. This is an excellent framework and has contributed at the highest level since 2005, but is only funded at a skeleton level by the Federal Department of Agriculture Fisheries and Forestry (DAFF) Much stronger collaboration and funding from DEWHA, the Federal Department of Health and Aging and State and Territory E, C&NR, & H Departments is needed. A properly funded AWHN would provide a fully functional network to assist with coordination of emergency responses to pest and disease incursions, new, emerging and emergency wildlife disease investigation, surveillance, control and management, and education and training.
- To ensure high standards of quarantine and biosecurity involving wildlife disease threats the Natural Resources Management Ministerial Council (and Primary Industries Ministerial Council) and their committees, working groups and consultative forums **need wildlife disease expertise**. Shared Responsibility page 9, points 38, 39. Where does wildlife disease and environmental health fit in to Figure 2: Organisation of Animal Health in Australia?
- B3 Changing operating environment, pages 11&12, points 41&42. Quarantine and Biosecurity risk management systems do need to expand to include threats to the natural environment, including fisheries (42). New and emerging diseases, overseas disease outbreaks (eg. West Nile Virus in 200 species of mammals, birds, reptiles, spread by invertebrates), the influence of climate change on the spread and establishment of exotic pests and diseases are changes Q&B needs to respond to. Proactive, preventative wildlife disease approaches need to be developed. This area **needs a comprehensive strategic approach that includes considerations and resourcing of wildlife disease monitoring and surveillance**.
- **There is a lack of diagnostic tests for diseases of wildlife**. Without these we do not know what is endemic and cannot test imports. B3 Changing operating environment, page 11, point 43.

### Part C. Issues for consideration

**C1 Risk across the quarantine and Biosecurity continuum.** Questions page 13 & 14 Is the Q&B framework adequate to analyse and manage risks to the environment? Does BA have the skills/ability to assess any such risks? **Wildlife disease base line data is missing. Wildlife disease understanding and skills may be lacking.**

Are the arrangements for incursions with a principally environmental impact appropriate? **Probably not, as there are weak links with DEWHA and State & Territory E, C&NR, & H Departments. These agencies have little wildlife disease expertise, and few staff have had wildlife disease education & training.** Are Australia's emergency response plans for exotic pest and disease outbreaks adequate? **Probably inadequate for introduced wildlife disease, but could be improved by educating and engaging field staff in State and Territory E, C&NR, & H Departments. This framework could be developed using the Australian Wildlife Health Network and State and Territory coordinators.** <http://www.wildlifehealth.org.au/AWHN/home.aspx>

Are arrangements for export inspection and certification effective? Baseline data to show Australian wildlife are free of many diseases is missing.

What are the links for **sharing wildlife disease information and costs between Commonwealth, State and Territory governments and industry?**

## **C2. The legislative framework.** Questions page 15

Are the current roles and responsibilities of the Commonwealth, State and Territory governments well understood and operating effectively? **Not for wildlife disease. There is little baseline data on wildlife diseases, little disease investigation of morbidity and mortality events and no wildlife disease surveillance. DAFF has provided input to AWHN since it was established in 2002. The AWHN, with 2-3 staff provides an efficient skeleton framework for wildlife disease surveillance in Australia, however State and Territory coordinators need to be resourced to investigate, diagnose and report disease in their jurisdictions.**

Are Australian's legislative arrangements designed to manage relevant environmental and marine threats effectively? **State and Territory E, C&NR, & H Departments have little wildlife disease expertise, limited resources, and undertake little wildlife disease investigation and surveillance. Such information provides base line data for new and emerging diseases, and information pertaining to the "freedom from disease" status of Australian wildlife, as required by some trading partners. These agencies may have good emergency systems that could be efficiently adapted to handle wildlife disease incursions if provided with key education and training, before the event.**

## **C3. Jurisdictional and institutional arrangements.**

Is the division of roles and responsibilities between government, industry and individuals appropriate? Are they working well in practice? For wildlife, the major responsibility falls on governments, Federal, State and Territory. There are few wildlife industries, kangaroo harvesting, and the wildlife and exotic pet trade. So there is no effective opportunity for cost sharing with industry. All governments have done little about wildlife health and diseases, except DAFF through the Australian Wildlife Health Network. This is an excellent framework that needs support from all environment, conservation and natural resource, and health agencies.

## **C4. Culture, efficiency and resourcing.**

Is there sufficient priority given to monitoring and surveillance post-border? **No** Who should provide these functions and resources? **For wildlife diseases we need DEWHA and State and Territory E, C&NR, & H Departments to be responsible for and adequately resource environmental health and wildlife disease investigation and surveillance.** Full engagement of these agencies is critical because of their responsibility for biodiversity which is threatened by legal and illegal importations, wildlife migrations and wind-borne insect incursions which can introduce wildlife

diseases and potential new zoonoses. They need to work with State and Territory agricultural agencies, veterinary diagnostic laboratories, private veterinary labs, and CSIRO AAHL.

Do the arrangements to recover costs of aspects of Q&B system appropriately reflect the balance between public interests and private benefits? There are few opportunities for cost recovery for wildlife disease, other than governments.

Is the infrastructure such as diagnostic laboratories and containment facilities adequate to meet Q&B needs? Expertise and resources are needed to test for wildlife diseases, and many are available at State and Territory, and CSIRO AAHL laboratories, if funding were forthcoming. Funding resources are often lacking from environment, conservation and natural resource, and health agencies.

### **C5. Communication and consultation**

Communication, education, training and awareness programs that include wildlife diseases are needed at all levels of government. There are many knowledge gaps and poor links between responsible agencies, non-governmental organizations and individuals.

### **C6. Research**

Critical information and knowledge gaps include baseline data on wildlife diseases in Australia. For example, the organism believed for two decades to be the cause of Amoebic Gill Disease and worth 10-20% of total production costs in the salmon industry in Tasmania has only recently been shown to be a new species. Incorrect or incomplete knowledge may lead to difficulties in developing control and treatment methods as well as incorrect assessment of risk factors, particularly with regard to other host species, especially native ones. Without this information it is not possible to determine priorities for emerging infectious disease research or define endemic diseases. We need an efficient and effective disease detection and surveillance system. The Australian Wildlife Health Network provides a framework for this, but needs resourcing at all levels. Governments responsible for wildlife and environmental health need to be engaged in this framework.

Decisions on research priorities should involve consultation with all relevant groups and individuals, sound assessment methods and be transparent.

Key examples of research needs relating to wildlife disease include the following:

- lack of data on the effectiveness of passive versus active wildlife surveillance systems (research needed). This is needed to design the best surveillance systems for Australia.
- lack of data on effectiveness of management techniques to control wildlife diseases (research needed). This is needed to design the best management strategies.
- lack of background data on the health of Australian wildlife (research needed). This is needed to be able to detect and prepare for emerging issues. This would mean follow up investigations of wildlife disease incidents to determine causation rather than just ruling out known major disease threats at the time.

### **C7. Review**

*Operational aspects of Q&B are periodically reviewed through monitoring. A range of audit, certification, ..... at the border and in some cases pre-border. Most post-border monitoring for exotic pests and diseases is conducted by State and Territory governments and private animal and plant health specialists. **What happens for wildlife diseases?** Page 23, point 97*

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