

# Annual Report 2019-20



**Wildlife Health**  
AUSTRALIA

the national coordinating  
body for wildlife health

- Working with 45+ expert biosecurity partners that see 47,000 wildlife cases per year
- Developing smarter shared resources to protect Australia's biosecurity
- 800 - 1,000 wildlife cases and events reported to national database (eWHIS), used by Australian and state governments, universities, zoos etc.  
(eWHIS: Electronic Wildlife Health Information System)

## PROTECTING

- Key decision-makers of the Australian, state and territory governments and the wildlife health community
- Linking 787 individual members and 40 organisational members
- 9 state and territory environment and agriculture agencies plus the Australian Antarctic Territory
- 25 zoos, universities and sentinel clinics
- 66 specialist agencies
- 7 influential environmental groups

## CONNECTING

## INFORMING

- 108 national wildlife disease investigations supported
- 26 submissions to national, state and territory government wildlife enquiries
- Representation on OIE (World Organisation for Animal Health Working Group on Wildlife), Australian Animal Health Committee, National Biosecurity Communication and Engagement Network
- Produced and published National Wildlife Biosecurity Guidelines
- Maintained a suite of other pivotal resources including the Emergency National Wildlife Disease Response Guidelines

## ENABLING

- Practical horizon-scanning for wildlife health events
- 74 expert hot-topic notifications to government
- 142 highly utilised fact sheet on wildlife diseases with 5 new sheets developed and 15 sheets updated
- 52 website information updates
- 137 responses to investigative enquiries
- 23 digital digests of wildlife health news and resources provided to members
- Real-time key knowledge-sharing via eWHIS



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# Chair's report

**Ian Thompson**

Australia's biodiversity and the natural systems it supports are under pressure. Monitoring and managing wildlife health are essential parts of monitoring and maintaining a healthy environment.

An ongoing challenge for Australia is how to monitor wildlife health and disease; integrate monitoring information with knowledge of health and disease dynamics in wildlife, domestic animals, humans and ecosystems; and use this knowledge to guide the decisions and actions of governments, businesses and communities impacted by wildlife and ecosystem health.

The system needs to connect in smart ways the people and groups who contact, manage, or are affected by wildlife and wildlife health issues. The groups are diverse: wildlife carers, zoos, universities, laboratories, vets, public health physicians, policy makers, industries and more. By connecting knowledge, expertise and influence we are able to better understand wildlife health issues, detect health and disease risks early, work cooperatively to manage the issues and risks, and create the working relationships and institutional arrangements to provide for the longer-term health of our communities, businesses and ecosystems.

The benefits of the system are far-reaching: protecting threatened and vulnerable wildlife species and ecosystems; protecting people from diseases; and the safe, sustainable development of Australia's livestock and food industries.

Wildlife Health Australia (WHA) provides leadership in this area by working with government and non-government stakeholders to help support and build our national wildlife health system. This year, the WHA Management Committee began discussing the next phase of operations for WHA and the national system. Given the growing needs and burgeoning requests of stakeholders, a decision needs to be made as to whether WHA now expands to meet these needs, continues with its current activities, or becomes a more focussed organisation. The proposal led by Universities to form an Australian Wildlife Health Institute (**page 11**) creates opportunities. There are barriers to understanding and acting on wildlife health matters and, a better understanding of the needs of project participants and their peers, current and potential investors in wildlife health, community members, industry and government is required. The future needs of the country will largely dictate the final form, and the WHA Management Committee has concluded that an important activity for next year will be a planning process aimed at generating practical, sustainable development pathways for organisations and groups involved in wildlife health in Australia. An exciting year ahead!

In my role as chair, I would also like to acknowledge our funding partners, members of the National Biosecurity Committee (NBC), and its sub-committee, the Animal Health Committee (AHC), in committing to arrangements that now ensure the future financial security of WHA. We also need to recognise that WHA is only able to undertake its national wildlife activities

through accessing the goodwill and social capital of its partners and networks. Both individuals and organisations contribute on a largely voluntary basis, meaning that the WHA network can achieve results at drastically lower cost than could be achieved by government alone. In **2019-20** the **787** individual members, **40** organisational members and over **120** service partners contributed approximately **\$5.6M** to achieving the objects of the organisation as in-kind contributions and it is estimated that partners in Australia's general surveillance system see on average about **47,000** wildlife cases each year from which approximately **800-1,000** wildlife health events fit criteria and are captured in the national database of wildlife health information, eWHIS. With its members, the WHA network makes a significant financial commitment to the progression of wildlife health in Australia.

The energy, insights and local knowledge that our partners and networks bring to our work is invaluable. Without the continued support of our network, it is questionable whether our wildlife health system would function. The value and importance of these individuals and organisations in contributing and shaping the future of Australia's wildlife health system cannot be overstated.

I commend this report to you and thank you all for your continued support.

**Ian Thompson GAICD**

Chair of Wildlife Health Australia and Australia's Chief Environmental Biosecurity Officer





# Section 1: About Wildlife Health Australia

## Why are we needed?

Wildlife health matters. **Australia's biodiversity and natural systems are under pressure.**

The organisations and groups involved in wildlife health in Australia are many, varied, and are often small and work in isolation. The barriers to understanding and acting on wildlife health issues in Australia are also many and varied at a time when wildlife populations, ecosystems and communities are experiencing unprecedented pressures connected to environmental degradation, urbanisation, globalisation, climate emergencies and disease emergence among other factors.

Australia has the people, processes and expertise to manage wildlife health, but it requires national coordination and leadership. **Wildlife Health Australia is essential for leading and coordinating national action on wildlife health to help protect, promote and enhance the natural environment, biodiversity, economy, and animal and human health.**

**Monitoring and managing wildlife health are an essential part of maintaining a healthy environment. Australia's wildlife species are threatened by emerging diseases** such as chytrid fungus in amphibians and white-nose syndrome in bats. **Wildlife are also involved in the epidemiology of diseases that cause illness in domestic animals and people** such as Q fever. **Emerging disease in humans and animals is increasing. Most involve wildlife** and include, for example, bat and insect borne viruses and influenzas. Authorities require knowledge of disease dynamics from monitoring, surveillance, research and expert opinion, to develop treatment, management and prevention strategies.

**Chemical contamination and toxins affect public, animal and ecosystem health.** Wildlife can act as indicators of environmental health. In monitoring wildlife health, we also indirectly monitor the health of ecosystems, domestic animals, people and communities.

**Wildlife are also involved in the epidemiology of trade-sensitive diseases** such as foot-and-mouth disease and African swine fever. Trade partners can cease trade or delay return to trade if Australia cannot demonstrate freedom from a disease. To avoid potentially devastating trade shocks, we need to understand the potential for disease transmission across species and how to prevent exposure of domestic animals to the risks. We also need proven, ongoing, streamlined processes for surveillance in wildlife.

**Human behaviour affects wildlife and the ecosystems in which we co-exist.** Diverse groups and organisations are involved with or have a stake in wildlife and ecosystem health. This makes it vital to align incentives to connect wildlife surveillance and research with decision-making and action nationally, and minimise counterproductive competitive behaviour and silos.

All evidence suggests that the challenges of sustaining a healthy wildlife population in Australia will become greater with changing land use, climate change and as societal practices bring wildlife, livestock and people into closer contact. Now, more than ever, there is the need for coordinated national action on wildlife health.

## What is the challenge and the change that we are seeking?

An ongoing challenge for Australia is to:

- Monitor wildlife health and disease
- Integrate population monitoring information with knowledge of health and disease dynamics in wildlife, domestic animals, humans and ecosystems, and
- Use this knowledge to guide the decisions and actions of governments, businesses and communities impacted by wildlife and ecosystem health.

The system needs smart solutions to connect the people and groups who contact, manage, or are affected by wildlife and wildlife health issues. These groups are diverse: wildlife carers, zoos, universities, laboratories, vets, public health physicians, policy makers, industries and more.

By connecting knowledge, expertise and influence we can:

- Understand wildlife health issues
- Detect health and disease risks early
- Work cooperatively to manage the issues and risks, and
- Create the working relationships and institutional arrangements to provide for the longer-term health of our communities, businesses and ecosystems.

**The benefits of the system are far-reaching: protecting threatened and vulnerable wildlife species and ecosystems; protecting people from diseases; and the safe, sustainable development of Australia's livestock and food industries.**

Sector-wide change is required: government, business and community leadership need to commit to the evolution of a National Wildlife Health System that is comprehensive, integrated (or 'joined-up'), smart and efficient. The organisations, groups and people involved need to understand how and why they participate in the knowledge, action and networks. Participants are then able to weigh up the costs and benefits of their involvement, for themselves, their group or organisation, and for Australia's national interest.

## Who are we and what is our role?

WHA are the people and organisations in Australia with a commitment to wildlife health. We work together to help create the effective linkages which make up Australia's wildlife health system. The WHA network stewards, facilitates and coordinates **trust-based relationships, networks and collaborations** to generate cooperation and standards for monitoring, surveillance, on-ground action, and tools and resources which improve wildlife health. We use **participatory processes** to **cultivate co-investment and confidence** in the system and **reach agreement on how it evolves**. WHA programs operate in Australia's national interests to motivate and incentivise action among its members and minimise competition and silos. The national network is supported by a small dedicated team located at the head office in Sydney, Australia, but with representatives in all states and territories including Australian Antarctic Territory.

We work to represent the wildlife health community and have established focus groups, programs and projects to help us do this. These programs improve communication and coordination, provide and receive technical advice, facilitate the resolution of issues and provide professional support. WHA works to ensure that there is improved investigation and management of wildlife health. The products and services provided by WHA assist in limiting the deleterious impact of wildlife disease on natural ecosystems, human health, primary industries and tourism, resulting in ecological, economic and social benefits to Australia.

WHA supports Australia's framework for managing wildlife health and disease, which also allows Australia to meet its responsibilities for national and international health and disease reporting.





# Section 2: Legal Framework and our Governance

## Legal framework

WHA is a 'for purpose' (not-for-profit), incorporated association registered under the Associations Incorporation Act (2009) in New South Wales, Australia. We are also a registered charity with the Australian Taxation Office (ATO) and the Australian Charities and Not-for-profit Commission (ACNC). We submit annual activity statements to the ACNC, and these are available on the ACNC website, [www.acnc.gov.au](http://www.acnc.gov.au).

In 2017, WHA was registered as an Environmental Organisation with the Department of the Environment and Energy. The Register of Environmental Organisations is a Commonwealth tax deductibility scheme, which allows eligible organisations to be endorsed as Deductible Gift Recipients by ATO. This means that all donations (over \$2) to the WHA Public Fund are tax deductible. Donations are increasing and this year the WHA Management Committee agreed to a process for their disbursement, which will commence next year. All funds received will be used to support WHA's environmental purposes including the advancement of the natural environment and ecosystems across Australia. Donations will continue to be sought from members twice a year and can be made using WHA's payment service provider, which states full compliance with requirements of the Payment Card Industry Security Standards Council (PCI SSC). Advertisements through the not-for-profit "Guide to Giving" and other fora seek donations year-round from the public.



# Governance

WHA is administered under good organisational governance principles. The WHA Management Committee meets four times a year and provides strategic leadership on wildlife health issues for Australia. Meeting summaries, and information about Management Committee members, are available on the [WHA website](#). Several changes occurred in the Management Committee in 2019-20. Our long serving member, Robert Johnson, representing the Veterinary Conservation Biology special interest group of the Australian Veterinary Association retired and has been temporarily replaced by Phil Tucak from Western Australia who brings skills in science and electronic media communications.

Tamara Riley from the Australian National University also joined the Committee, bringing a much needed Indigenous perspective to our business.

Governance is an important area for WHA and time was devoted in 2019-20 to identify ways in which diversity could be increased on the Committee. Though it has served the nation well, the Management Committee is now examining its governance and is considering the value in moving WHA to a skills-based board within a company limited by guarantee structure. This will be further considered as part of planning activities next year (see Planning and Priorities for 2020-21 - [page 35](#)).



**Ian Thompson (Chair)**

Australia's Chief Environmental  
Biosecurity Officer

**Australian Government Department  
of Agriculture, Water and the  
Environment**



**Rodney Vile**

Principal Officer Wildlife Emergencies,  
Department of Environment, Land  
Water and Planning

**Invited Member**



**Phil Tucak**

Australian Veterinary  
Conservation Biologists

**Organisational Member  
Representative**



**Andrew Peters (Deputy Chair)**

Wildlife Disease Association Australasia

**Organisational Member  
Representative**



**David Phalen**

**Individual Member  
Representative**



**Anna Meredith**

Wildlife Health Victoria  
**Organisational Member  
Representative**



**Tamara Riley**

Australian National University  
**Invited Member**



**Kevin de Witte**

Tasmanian Chief Veterinary Officer  
**Animal Health Committee  
Representative**





# Section 3: Activities and Programs

## Current activities and programs

In 2019-20, WHA focused operations in five areas:

- Research and Knowledge
- Preparedness and Response
- Communications and Outreach
- Surveillance and Investigation
- Education and Training.

## AREA OF FOCUS: RESEARCH AND KNOWLEDGE

The objective for the area of focus of Research and Knowledge within the WHA Strategic Plan is to:

- Facilitate and support collaboration and communication between those with an interest in wildlife health and improve knowledge of, and facilitate the development of solutions for, priority wildlife health questions and problems as identified by the community.

Tasks required to achieve this objective are:

1. In consultation with our members, identify wildlife health knowledge gaps, research needs and priorities and bring these to the attention of authorities for consideration for funding and action, and
2. Support the development of, and bring a national and international perspective to, a proposal and feasibility study for an Australian Wildlife Health Institute and International Collaborating Centre for Wildlife Health Solutions to assist in developing solutions to national priority wildlife health issues.

### Key performance indicators are:

- Clarifying WHA's role in the proposed Australian Wildlife Health Institute by June 2020
- A decision on developing a proposal for an International Collaborating Centre for Wildlife Health Solutions for Australia by June 2020
- If to go ahead, proposal developed and submitted to the World Organisation for Animal Health (OIE) by November 2021.

### The outcome is:

- Improved problem-solving capacity and capability for wildlife health issues in Australia.

### Research priorities

Biosecurity remains an ongoing high priority of the Australian, state and territory governments. Research, development and extension (RD&E) plays a vital role in underpinning the biosecurity system by providing the evidence base for policy formulation and management decisions. In 2017 the National Biosecurity Committee (NBC) endorsed the National Biosecurity RD&E Priorities, which are:

- Data and intelligence (prevent exotic pests and diseases from entering and establishing in Australia) – Prevention
- Surveillance and diagnostics (understand and quantify the impact of pests and diseases) – Preparedness
- Treatment and recovery (demonstrate the absence of pests and diseases) – Eradication

- Risk and decision tools (improved decision-making tools and risk analysis) – Containment
- General surveillance (manage the pests and diseases that are already in Australia) – Management, and
- Communication, community attitudes and awareness (socioeconomic drivers of adopting best practice) – Engagement.

These are delivered within four programs:

- New approaches to detection, prevention and eradication
- Biocontrol
- New and sustainability of existing management options, and
- Socioeconomic drivers of adopting best practice.

Four National RD&E strategies address these priorities and are either due for, or in the process of being revised. One of these strategies, the National Environmental and Community Biosecurity Research Development and Extension (NECBRD&E) Strategy, presents priorities for the environment space. WHA represented terrestrial wildlife on the steering group for development of this strategy and in 2019-20 accepted a role on the Environment and Invasives Committee convened NEBCRD&E Strategy Task Group to review and progress the priorities identified. Key questions and tasks for the Group include:

- To identify where the needs of environmental and community RD&E might differ from other biosecurity RD&E, and how best to address this
- Determine where could the Strategy add unique value to the biosecurity system, extend R&D in other strategies or where it could rely on the priorities of the other strategies
- Resolve how the Strategy could best encompass relevant R&D being conducted outside traditional biosecurity fields, and
- Identify opportunities for strategy alignment, areas of duplication or conflict to be avoided, or options for addressing them.

This work will be continued into 2020-21 and will help shape environment research priorities including wildlife health now and into the future.



## Proposal for an Australian Wildlife Health Institute

In June 2007, a workshop was organised by the then Australian Government Department of Agriculture, Fisheries and Forestry (now the Department of Agriculture, Water and the Environment: DAWE), Sydney University and WHA (then the Australian Wildlife Health Network) to examine how universities could better assist Australia in the management of risk associated with diseases with wildlife as part of their ecology. This included universities' potential contribution to threat identification, articulation, quantification and mitigation through work in areas such as research, education and training, surveillance, emergency disease preparedness and response, and communications. The focus was on activities that could be immediately implemented and their potential role in capacity-building and future-proofing. It was hoped that this would lead to improved collaboration and cooperation between Australian universities and government in the area of wildlife disease management. This would subsequently lead to an improvement in Australia's biosecurity and management and ultimately have beneficial effects on Australia's economy, trade, human health and biodiversity.

The majority of Australian universities, government departments and some non-government organisations (NGOs) actively working in wildlife biosecurity attended. The conclusions were that Australian universities had the capacity and interest to contribute significantly to the management of biosecurity in Australia.

This was primarily in the areas of research, education and training, capacity-building and future-proofing. However, to begin to realise their potential in this area Australia must develop and implement:

- A structure that could be used to facilitate coordination and communication within and between Universities and government (the Universities Focus Group - [page 12](#))
- A national education and training strategy for wildlife biosecurity with specific emphasis on wildlife health in the context of ecosystem health including human, domestic animal and environmental health
- A national research strategy for wildlife disease management that will enhance Australia's biosecurity
- A national communication strategy to:
  - Raise awareness of the need to build capacity for national surveillance, disease investigation and the underpinning requirements of education and research
  - Better understand the communication needs of stakeholders (and make recommendations on initiatives)
  - Develop formal processes for communicating surveillance data. Australia also has a need for infrastructure for communication focused on addressing wildlife health and biosecurity information management needs.

Infrastructure was also discussed. However, it was concluded that more extensive consultation would be required to clearly identify and articulate the infrastructure priorities for wildlife biosecurity within a universities framework.

A small working group was formed to take these recommendations forward commencing with a structure that could be used to facilitate coordination and communication within and between Universities and government (the WHA Universities Focus Group - [page 12](#)).

In November 2019, the Australian Government Department of Agriculture, Water and the Environment (DAWE) provided support that allowed a group of key stakeholders to be brought together at a national workshop in Melbourne, Victoria to test the idea of a more coordinated approach to wildlife health research in Australia by forming an Australian Wildlife Health Institute (AWHI).

The workshop concluded that:

- Though significant research effort and resources have been invested in understanding wildlife health over recent decades in Australia, there is a lack of integration between and within disciplines, and between the research community and stakeholders, to work together to devise practical and effective solutions that balance the health of wildlife and the ecosystems on which we depend with human, societal, agricultural and economic needs.
- Existing approaches and funding for collaborative research on wildlife health and its application in Australia have been largely *ad hoc* and short term.
- Significant advances have been made where a strategic approach to research has been adopted, even if only for a short time.
- The lack of a strategic approach over the longer term has meant Australia's research efforts have largely been ineffective.

An Australian Wildlife Health Institute would take a position of national and international leadership in providing tailored practical solutions to mitigate and manage wildlife health problems. The overarching goal of an Institute would be to help change the current paradigm of *ad hoc* crisis wildlife health management to implementation of practical, effective and sustainable wildlife health solutions that would ensure healthy Australian wildlife.

There was widespread support for development of the proposal for an Institute and many stakeholders, including WHA, have committed funding to support development of a steering group whose job it will be to take the initiative forward. WHA has been invited to provide a nominee to the group and it is hoped that the proposal will clarify feasibility, potential and preferred models, activities and funding flows, as well as any potential future relationship between an Institute and WHA should the feasibility prove to be positive.

## University Focus Group

Members of WHA affiliated with one or more of Australia's universities or research institutions make up a significant component of the WHA network (currently about 200, a quarter of all members, from 34 Australian and 19 international universities). The national workshop of 2007 (page 11) led to the formation of the Universities Focus Group to provide a forum for this sector and to enhance the contributions that they could make to wildlife and biosecurity. A key role of the group is to act as a focus point to improve communication and coordination around wildlife health in the Australian context, primarily in the areas of research, education, training, capacity-building and future-proofing. The group meets regularly to share information and discuss issues of mutual concern as "Hot Topics", which promote discussion and information sharing on emerging or challenging wildlife health issues. Topics discussed this year included antimicrobial resistance in Australian wildlife, the impacts of bushfires on Australian wildlife and the impacts of COVID-19 on Australian universities.

The majority of Universities Focus Group members are directly involved in the development of the proposed Australian Wildlife Health Institute and their input will be sought, along with other national wildlife focus groups, as the Australian Wildlife Health Institute project moves ahead.

As well as activities examining the potential development of an Australian Wildlife Health Institute and the routine activities of the Universities Focus Group, WHA continued activities in a number of other important areas of research and knowledge including scanning and analysis and the collation and provision of information and intelligence to stakeholders. In 2019-20 WHA provided support to more than 10 university, government and non-government led research projects.

## Scanning and analysis

Since 2003, an important and valued activity performed by WHA has been scanning and analysis to provide intelligence for stakeholder groups. A high priority is identifying and communicating current and emerging issues which are collated, summarised and assessed for the Department of Agriculture, Water and the Environment and the Australian Department of Health as "Hot Topics". Selected media and scientific publications, and pre-publications of note are also circulated to key stakeholders in close-to-real-time. A representative from WHA participates in Australia's ongoing animal health foresight and horizon scanning network.

WHA also provides information relating to wildlife health to members and stakeholders including:

- Production of a regular national and international electronic digest of wildlife health information relevant to Australia (The Digest). This occurs through ongoing scanning of over 300 sources of web based, media, focus groups and publicly available information. The Digest is generated and circulated to over 827 WHA individual and organisational members around Australia and overseas, including World Organisation for Animal Health Focal Points for Wildlife in the region.

- Production of a monthly 'Bat News' email collating media articles and publications relating to bat health, which is available to anyone with an interest and has over 200 subscribers.
- Fact sheets, technical documents and other resources.



Scanning and moderation of reported wildlife health incidents by surveillance partners and those in the public domain continued. Current and emerging issues continued to be identified, collated, assessed and summarised for stakeholders.

A total of **74** hot topic email notifications were sent to Department of Agriculture, Water and the Environment, the Australian Department of Health and key stakeholders in 2019-20. This included **23** COVID-19 and **16** bushfire related.





## Fact sheets, technical documents and other resources

There are now over **140 WHA Fact Sheets** on the WHA website, with **5** new sheets developed and **15** sheets updated in 2019-20. The new fact sheets developed this year included:

- Disease of concern in wild Australian crocodiles
- Fluorosis in Australian wildlife
- Novel Coronavirus 2019 (COVID-19)
- Duck viral enteritis (herpesvirus)-EXOTIC
- Biosecurity concerns associated with feeding wild birds.

Fact Sheets that had extensive updates this year included:

- Yellow fungus disease in reptiles
- Antimicrobial resistance and Australian wildlife
- *Mycobacterium ulcerans* (Buruli ulcer) disease
- Wobbly possum disease
- Beak and feather disease in Australian birds
- Tularaemia and Australian wildlife
- Sunshinevirus in Australian snakes.

A significant workload is associated with ensuring that the fact sheets are kept up-to-date and new sheets developed as needed.

In the last five years, **98** fact sheets have been reviewed or created.

To complement information contained in the fact sheets the '**WHA Documents**' page on the website contains technical documents and publications developed by the organisation on behalf and in collaboration with the wildlife community. Another section of the website '**Resources**' provides comprehensive information on current and past activities relevant to wildlife health for Australia and the region.

A priority for 2019-20 has been in ensuring that information of relevance to the bushfires response (**page 14**), African swine fever, COVID-19, and *Ehrlichia canis* (**page 16**) was up-to-date and easily accessible to the public on the WHA website.



## AREA OF FOCUS: PREPAREDNESS AND RESPONSE

The objective for the Preparedness and Response area of focus within the WHA Strategic Plan is to:

- Facilitate improved, effective and efficient wildlife disease preparedness and response in Australia.

This will be achieved by assisting authorities in identifying priorities for enhancement of Australia's emergency wildlife health preparedness arrangements and facilitate funding and action.

### Key performance indicators

- Priorities identified for enhancement of Australia's emergency wildlife disease preparedness arrangements by December 2020.

### The outcome is:

- A healthier and safer Australia, its people, livestock industries and ecosystems.

### Priorities

**Biosecurity** - In 2019-20 WHA provided priorities for wildlife preparedness to the National Biosecurity Emergency Planning and Exercise Group (NBEPEG). These included:

- The identification of priorities using strategic risk assessment against the five pillars of preparedness with a focus on preparedness activities for the wildlife sector: governance, systems, documentation, capacity and capability, and rehearsal.

- Specific priority activities identified included:

- Incident control systems training for wildlife first responders and other wildlife people on an all hazards basis.
- Identification of potential wildlife members that could be provided to National Biosecurity Management Consultative Committee and Technical Advisory Committee, and train them in their role.
- A facilitated case management system exercise at jurisdictional level.
- Development of a standard operating procedure for an approach to investigation of mortalities in wildlife including unmanaged domestic animals.
- Development of a process for gap analysis for documentation.
- Review of existing incident control systems, biosecurity incident management systems (BIMS) training with a view to identifying content that could be made available to teaching institutions e.g. vet schools.
- Develop and conduct a facilitated exercise to develop a national response plan to an emergency wildlife health incident.

**Natural hazards – Bushfires** - The unprecedented bushfire season of 2019-20 in Australia caused the estimated loss of three billion animals and 130 threatened ecological communities. Throughout the season, wildlife carers and wildlife veterinarians actively wishing to assist in the management of wildlife health and welfare arising from the fires worked in an environment of varying or absent coordination and management, standards and practices or supporting documentation. This impacted on the opportunities to provide appropriate care and to manage the health and welfare of native wildlife.

WHA participated in national workshops convened by the Threatened Species Commissioner and other processes, and the WHA Management Committee formed a small, time-bound task group whose role it was to help identify priorities in the preparedness area for wildlife health and welfare.

The Task Group concluded that the outcome of various reviews and debriefs of the recent bushfire season show that there is an immediate need to enhance native wildlife health preparedness for the next and future bushfire seasons. High priority opportunities to enhance preparedness should primarily be aimed at native wildlife welfare and protection and support of the wildlife in their natural environment. Activities should target all wildlife responders, including wildlife carers and wildlife veterinarians, working with government agencies to manage wildlife health and welfare issues following a bushfire. The longer-term outcomes of these actions for native wildlife should aim to maintain stable natural environments and their biodiversity.

Weaknesses and gaps identified included:

- Lack of relevant and consistent documentation such as national standards, policies, protocols, and management systems and training that is applicable to and for the on-ground cadre of wildlife responders to native wildlife affected by bushfires.
- Varying levels of coordination and planning for the native wildlife affected by bushfires across the various jurisdictions and state based agencies.
- Need for integration of wildlife emergency response with an all hazards approach within emergency management. The immediate priority within an all hazards approach is for the natural hazards, specifically for bushfires.

Opportunities and what needs to be done were also identified. During the next two years preparedness activities to support predictable and sustainable responses for affected native wildlife ready for the next and future bushfire seasons should include:

- Commencing as soon as practical to develop and validate documentation including standards, policies, procedures, and management systems that are specifically relevant to wildlife responders.
  - The development should acknowledge and use relevant pre-existing documentation and systems.
  - Working drafts would need to be completed and available within 12 months, with final versions delivered in the following 12 months.
- Working with fire response and wildlife agencies across the various jurisdictions, integrate wildlife welfare response as a standard component of their response arrangements and develop a nationally accredited training program for wildlife responders to operate in an incident response (emergency management arrangements, working in an emergency operations centre, incident control system).
  - Utilising and building on existing training programs within emergency response agencies, the first intake should commence as soon as practical with the aim to have

an initial cadre of key wildlife responders training in incident control systems completed within 6 to 8 months.

- Subsequent intakes with completion of training should occur over the next year with completion of development of an accredited program within two years.
- Development of a nationally coordinated and consistent community led component of emergency response of wildlife responders that will integrate into the emergency management arrangements of each jurisdiction.
  - The framework should be completed within 12 months and be operational in the subsequent 12 months.
- Monitoring and evaluation is required and testing to validate the relevance and operational usefulness of the outcomes from the other activities should be completed during the second 12 months of the two years.

For each activity, and activities overall, national coordination was required.

The recommendations from the Task Group were made available to all Australian governments through members of the WHA Management Committee and the WHA Environment Representative Group. A key question we now face as a country is how the capacity and capability latent in the national wildlife health system can best be activated and deployed in these and other wildlife emergencies. Work is ongoing.

In January 2020, WHA established a working group involving government and non-government members, state/territory WHA Coordinators and Environment Representatives, ecologists, wildlife veterinarians, wildlife nutritionists and licensed rehabilitators. The group developed national guidelines on supplying water and food to free-living wildlife after natural disasters based on the current knowledge for emergency situations. Most jurisdictions have policies in place that discourage supplementary feeding of free-ranging wildlife because of the potential adverse effects such as direct effects on animal health and behavioural modification and dependency. The bushfires destroyed large areas of habitat that made it difficult for free-ranging wildlife to access the normal sources of food and water both during and after the fires. The guidelines provided advice on what to feed and what not to feed free-ranging wildlife affected by the bushfires. The guidelines were available to governments for their use during the response.

Throughout the bushfire crisis, WHA developed an informal hub for the collection, collation and sharing of information on the extent of support/activities being undertaken in jurisdictions by WHA members in government and non-government organisations. These were provided to WHA members via email updates and information collated on the WHA website. See [WHA website](#) for more information.



**Other activities** – Other high priority preparedness and response activities involving WHA this year included provision of support to the Animal Health Committee (AHC) in activities designed to better prepare Australia to a potential incursion of African swine fever, the response to the diagnosis of *Ehrlichia canis* in dogs in Western Australia, and COVID-19 (page 31).

Wildlife are an important part of the epidemiology of most of the world's trade sensitive diseases. Australia has been monitoring the spread of one of these diseases, African swine fever, down through south east Asia and into our near northern neighbours. Australia's Animal Health Committee (AHC – page 18) has recognised that feral pigs are likely to play a significant role in Australia's ability to respond to an African swine fever incursion. Much of 2019-20 has been dedicated to reviewing Australia's preparedness arrangements for this disease under the leadership of the AHC and its formation of a dedicated task group, with sub-groups addressing specific areas. WHA supports AHC in its role as an observer on this committee and supported a number of these sub-groups including: biosecurity and communications; destruction, disposal and decontamination; surveillance, and diagnostics. This has been a huge effort by Australia, the AHC and the many different government and non-government stakeholders. In 2020-21 the findings from this work will be incorporated into Australia's veterinary emergency plan and will help inform any response that may be required in future.

During a disease incident, WHA also works to ensure that response agencies are well supported, and people and information are coordinated throughout the response. Rapid and timely access to wildlife disease surveillance information and a network of wildlife health professionals is an important capability the national system brings in assisting authorities during a response. In 2019-20, WHA provided assistance or responded to **108** wildlife health events.

In 2019-20 WHA also:

- Contributed to the Australian Emergency Veterinary Plan (AUSVETPLAN) 2025 and Beyond Planning Workshop convened by Animal Health Australia in Glenelg, South Australia, and sat in as observers on the African swine fever desk-top exercise, Exercise Razorback.
- Provided comment on revised AUSVETPLANS for screw worm fly, Lyssaviruses, Japanese encephalitis and movement controls, and
- Accepted membership to the newly established recovery team for the critically endangered southern bent-winged bat. Recent work by members of the Bat Health Focus Group, supported by the Department of Agriculture, Water and the Environment and facilitated by WHA, identified the southern bent-winged bat as a species that would be at risk should the exotic disease white-nose syndrome reach and become established in Australia.

Other important activities provided by the system include communications and preparedness training.

## The National Biosecurity Communication and Engagement Network (NBCEN)

The NBCEN produces nationally consistent public information in response to pest and disease outbreaks (biosecurity incidents) that impact on Australia's agricultural industries. The network consists of communication managers from the Australian, state and territory agriculture agencies, Plant Health Australia, Animal Health Australia, CSIRO's Australian Centre for Disease Preparedness, Australian Government Department of Health, Australian Local Government Association, Centre for Invasive Species Solutions and Wildlife Health Australia.

Biosecurity incidents can impact on many people including affected producers and growers, local communities, overseas trading partners, exporters, supply chain service providers, the general public and media. The NBCEN facilitates the rapid and consistent dissemination of information that affected people need to prevent and respond to a pest or disease outbreak. The NBCEN also plays a pivotal role in pest and disease prevention and preparedness communication and stakeholder engagement activities. WHA provides information and advice regarding wildlife health stakeholders and issues, and during a response assists the NBCEN in ensure consistency and alignment of messages.

## Preparedness training

Where possible, WHA also contributes to preparedness training, which occurs in partnership with relevant government agencies. In December 2019, with members of the Wildlife Diseases Association Australasia, WHA ran Exercise Easter Bilby, examining the roles and responsibilities of non-government stakeholders during a disease incident potentially affecting biodiversity. An all hazards-type approach is used and additional applications will be made to seek funding to support this important area in future.



## AREA OF FOCUS: COMMUNICATIONS AND OUTREACH

The objective for the area of focus of Communications and Outreach within the WHA Strategic Plan is to:

- Lead national action on wildlife health to protect and enhance the natural environment, biodiversity, economy and animal and human health.

Tasks required to achieve this objective are to:

1. Steward, facilitate and coordinate trust-based relationships, networks and collaborations
2. Provide expert advice and representation through participation in regional and national forums and committees
3. Perform a strategic enquiry that can be used to drive future development of Australia's wildlife health system. This will include identification of the needs of the public and a recommendation on legal structure and governance arrangements best suited to support the recommendations of the enquiry.

### Key performance indicators are:

- Strategic enquiry completed by December 2020
- Implement any proposed new legal and or governance structure by December 2021.

### The outcome is:

- Alignment of the national wildlife health system with the needs and expectations of the public.

### Leading national action on wildlife health

The WHA Management Committee has a key leadership role in the management of wildlife health in Australia. Its main function is to identify priorities and ensure that these are brought to the attention of the responsible parties for consideration for funding and action. The composition of the Management Committee ensures that the needs of both government and non-government stakeholders are heard and given equal consideration. Decision-making is by consensus and a number of founding principles and values help guide the Management Committee in what is a very busy and challenging space.

In 2019-20 WHA continued to facilitate collaboration and exchange of information on wildlife health issues between government and non-government organisations and the general community to support investigation and management of wildlife health. A major focus for engaging the broader wildlife health community in 2019-20 was related to bushfires and COVID-19.



## Trust-based relationships and collaborations

An important objective for WHA is to develop strong strategic alliances with partners and formalise these relationships. The main enabling mechanism for this is the WHA Marketing and Communications Strategy. Where possible WHA also assists partners in delivery of programs or projects that may be of mutual benefit, for example, providing support for the National Significant Disease Investigation (NSDI) Program administered by Animal Health Australia, and assisting government and non-government stakeholders on national issues involving wildlife health.

WHA is an associate member of Animal Health Australia, which builds a closer relationship between the organisations and helps WHA better identify and address the needs of our production animal industries and colleagues.

WHA also continues to liaise with national and state and territory agencies with an interest in wildlife health issues such as the Australian Government Departments of Agriculture, Water and Environment, and Health, Cooperative Research Centres, and Australian state and territory Departments of Agriculture, Environment and Health. Representation and support is also provided to Animal Health Australia, Animal Health Committee, Environment and Invasives Committee and the Consultative Committee on Emergency Animal Diseases on wildlife health issues.

In 2019-20 WHA represented the wildlife health community at the National Environmental Biosecurity Roundtable at Melbourne and the National Biosecurity Roundtable at Canberra.

Strongly held values shape WHA's approach. We:

- Champion wildlife health in Australia
- Support our partners and members in their endeavours to keep Australia's wildlife healthy
- Actively foster collaborations based on trust and shared understanding
- Facilitate long-term relationships to ensure a robust and sustainable wildlife health framework for Australia
- Respond to challenges by listening, learning and creating solutions for the future
- Respect one another, promoting a culture of diversity and cooperation
- Show our dedication, honesty and commitment in everything we do. Our approach is thoughtful and well-considered.

A small number of dedicated staff steward, facilitate and coordinate the **trust-based relationships** and **collaborations** needed to help manage the adverse effects of wildlife health on Australia's environment, biodiversity, animal and human health, trade and tourism. This is achieved by generating norms and standards for monitoring, surveillance, and on-

ground action, as well as facilitating the development of capacity, tools and resources which improve wildlife health in the areas of research and knowledge, preparedness and response, communications and outreach, surveillance and investigation and education and training.

## Expert advice and representation

In 2019-20, WHA proactively supported and/or responded to **137** requests over and above information provided as part of ongoing wildlife disease investigations ([page 20](#)). This included **12** COVID-19 and **18** bushfires queries. WHA has also responded to and/or provided submissions to **26** state/territory, national and/or international queries, request for input, reviews and/or public consultations.

In recognition of the increasing emphasis on environmental biosecurity by Australian governments, in 2017-18 WHA was offered and has accepted an observer role on Australia's Environment and Invasives Committee (EIC). The National Biosecurity Committee (NBC) established the EIC as a cross-sectoral committee with responsibilities for providing national policy leadership on the identification, prevention and management of invasive plant, vertebrate and invertebrate species that adversely impact the environment, economy and community. The EIC also provides national policy leadership on environmental biosecurity more broadly, including engaging with stakeholders and working with other national sectoral committees to provide NBC with consistent and consolidated advice on environmental biosecurity across the national biosecurity system. A high priority for WHA is to assist the work of this committee by providing a national wildlife health perspective.

WHA also has observer status on the Animal Health Committee (AHC). The AHC is a committee that sits under the NBC. The committee members include the Chief Veterinary Officers of the Commonwealth, states and territories, along with representatives from the CSIRO Australian Centre for Disease Preparedness and the Australian Government Department of Agriculture, Water and the Environment. Other observers on the committee include Animal Health Australia and the New Zealand Ministry of Primary Industries.

The main purpose of the AHC is to develop science-based and nationally consistent policy on animal health issues and to provide advice as necessary on animal health to NBC. In doing so, AHC provides leadership in developing and implementing policy, programs, operational strategies and standards for government in the areas of animal health, domestic quarantine, animal welfare and veterinary public health.

Australia enjoys a high level of food safety and quality, and an enviable reputation amongst our agricultural trading partners for freedom from disease. Surveillance, monitoring and reporting systems focus on the fact that Australia can be called upon to substantiate our claims of freedom from major diseases, including foot-and-mouth disease and bovine spongiform encephalopathy. As part of such assurances, we must be able to demonstrate that an adequate level of service exists to detect, diagnose and control animal diseases. The inclusion of WHA as an observer on the AHC assists members in the provision of information, depth of discussion and decision-making on issues relating to wildlife and where wildlife diseases may be involved with trade, market access and the environment.





WHA provides regular reports to AHC on the health status of wildlife in Australia and has provided comment on **13** Animal Health Committee papers since July 2019, revised Australian Emergency Veterinary Plans (AUSVETPLANS) for screw worm fly, Lyssaviruses, Japanese encephalitis and movement controls, as well as had input into InvasivesPLAN and AnimalPLAN.

WHA also attended and provided wildlife reports to all Animal Health Committee, Environment and Invasives Committee and National Biosecurity Community Engagement Network meetings. On behalf of the wildlife community we also contributed to the African swine fever Animal Health Committee Feral Pig Task Group and participated in the national Transformational Change to Animal Health Surveillance Workshop.

As well as the Animal Health Committee and Environment and Invasives Committee ([page 18](#)), WHA also represented its members on a number of important national committees and or by contributing to their outputs, including the National Animal Health Information Program (NAHIP) and National Significant Disease Investigation (NSDI) Program. An Australian representative is also provided to the International Union for the Conservation of Nature Wildlife Health Specialist Group and we provided representation at the National Environmental Biosecurity Roundtables and to the development of the National Priority List of Exotic Environmental Pests and Diseases.

## Strategic enquiry

WHA provides a significant leadership role by working with government and non-government stakeholders to help support and build our national wildlife health system. This year the WHA Management Committee began discussing the next phase of operations of WHA and the national system. Given the growing needs and burgeoning requests of stakeholders, a decision needs to be made as to whether WHA now expands to meet these needs, continues with current activities as is, or becomes a more focused organisation. The proposal to form an Australian Wildlife Health Institute ([page 11](#)) creates opportunities but also challenges in integration into what is already a very crowded space. The barriers to understanding and acting on wildlife health matters are myriad and a better understanding of the needs of project participants and their peers, current and potential investors in wildlife health, community members, company and government executives is required. The future needs of the country will largely dictate the final form and the Management Committee has concluded that an important activity for next year will be a planning exercise aimed at generating practical, sustainable development pathways for organisations and groups involved in wildlife health in Australia.





## AREA OF FOCUS: SURVEILLANCE AND INVESTIGATION

The objective for the area of focus of Surveillance and Investigation within the WHA Strategic Plan is to:

- Facilitate improved, effective and efficient wildlife health and disease surveillance and investigation in Australia that also satisfies international reporting requirements.

A key task is to maintain and expand the current national wildlife health coordination system for wildlife disease surveillance and reporting to include health and diseases with an impact upon biodiversity and environment. To do this, additional on-going funding will need to be secured.

### Key performance indicators are:

- Additional, on-going funding secured to enable expansion of the current national wildlife health coordination system to include wildlife carers and the public by June 2021.

### The outcome is:

- Improved protection of Australia's natural environment, biodiversity, trade and animal health industries, human health and tourism.

WHA programs and activities for 2019-20 that delivered these strategic objectives and will assist in ensuring that the key performance indicators (KPI)s will be met included:

### Administration of Australia's general wildlife health surveillance system

WHA assists Australian governments in administering Australia's general wildlife health surveillance system, and collects and disseminates information on wildlife disease events from across Australia.

The system relies on the detection, submission, investigation and reporting of sick and dead free-living (both native and feral species) and captive wildlife. Through WHA's focus groups, programs and projects, wildlife health information is collected into a national database, the electronic Wildlife Health Information System (eWHIS). Information includes submissions by WHA surveillance partner organisations; state and territory WHA Coordinators and WHA Environment Representatives ([page 24](#)), veterinarians at zoo-based wildlife hospitals and sentinel veterinary clinics, university clinics and pathology departments, as well as researchers, other wildlife health professionals and WHA members.



Key components of Australia's general wildlife health surveillance system include:

- Primary WHA Coordinators and WHA Environment Representatives
- The Zoo-based Wildlife Disease Surveillance Program
- The Sentinel Clinic Wildlife Disease Surveillance Program
- The University Based Wildlife Disease Surveillance Program
- A web-enabled national database of wildlife health information (eWHIS).

It is estimated that partners in Australia's general surveillance system see on average about **47,000** wildlife cases each year from which approximately **800-1,000** events fit criteria and are captured in the national database of wildlife health information eWHIS.

## National database of wildlife health information (eWHIS)

WHA administers Australia's national database of wildlife health information (eWHIS), which provides a national repository of wildlife health events. Data are provided by government and non-government sources via WHA surveillance partner organisations. eWHIS is web enabled, which allows WHA staff and authorised users to search, add and edit data based on the user's role and responsibilities. Data are contributed monthly from over **45** surveillance partner agencies and organisations ([page 20](#)). WHA maintains and regularly reviews data sharing and security procedures. A review of all users was completed in May 2020.

Surveillance information captured through Australia's general wildlife health surveillance system allows WHA to support Australia's Chief Veterinary Officer, the Australian Government Department of Agriculture, Water and the Environment, Animal Health Committee, Animal Health Australia, and Australia's states and territories to better prepare for and protect Australia against the adverse effects of wildlife diseases.

WHA ensures that nationally collated wildlife health information is available to inform decision-making and policy development, for the management of emergency disease incidents, for international reporting, and to protect Australia's environment, biodiversity, animal and human health, trade and tourism. Summary reports on a selection of wildlife disease and mortality events recorded in eWHIS are published quarterly through the National Animal Health Information Program (NAHIP) in each issue of Animal Health Surveillance Quarterly (AHSQ). WHA also provides information to help fulfil Australia's reporting requirements to the World Organisation for Animal Health (OIE).

**Requests for data in eWHIS** are managed according to the **Wildlife Health Australia (WHA) Data Management Policy**. In 2019-20, WHA provided wildlife health data held in the eWHIS to outside agencies, organisations or individuals for research projects, a disease risk assessment or publications on **11** occasions.

A large number of wildlife events (n=951) were submitted to the national database between July 2019 and June 2020.

**Significant events** from 2019-20 included:

- Unusually high numbers of lorikeet paralysis syndrome in northern NSW and southern Qld.
- Mass mortalities of grey-headed and black flying-foxes in NSW and Qld due to starvation.
- Two probable human cases of tularaemia in NSW linked, in one case, to bites and scratches from a possum, and in the other to wildlife necropsy; no related detections in wildlife.
- Avian chlamydiosis in Australian king parrots and crimson rosellas in the Blue Mountains region of NSW, and in crimson rosellas in Victoria.
- Endemic leishmaniasis in a wild agile wallaby in the rural Darwin region in NT.
- Detection of *Nannizziopsis* spp. in confiscated shingleback lizards in WA.
- Possum nidovirus elucidation.

AHSQ - WHA Report:



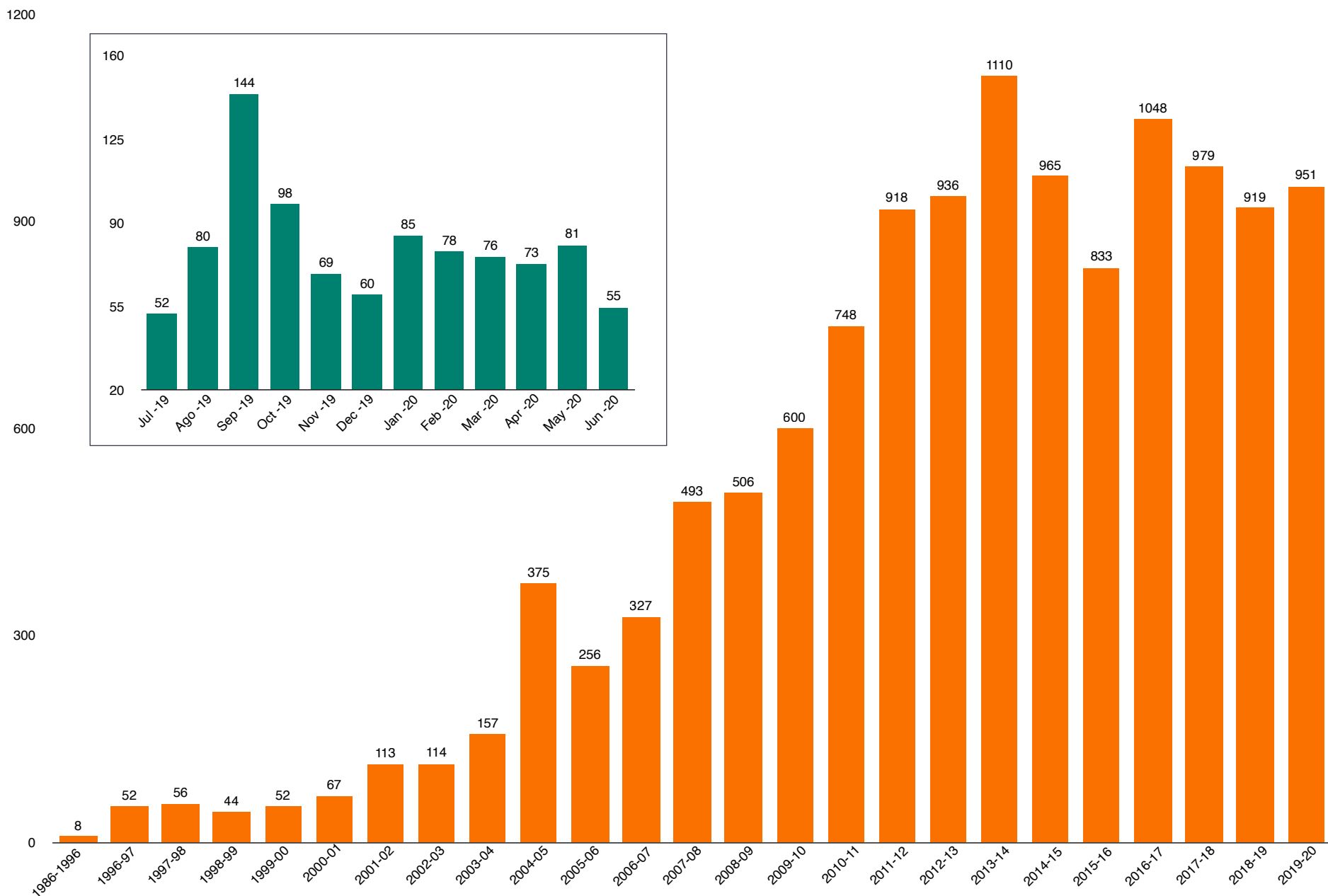


Figure 1: Wildlife disease events in eWHIS from July 1986 – June 2020 by financial year. Monthly submissions for 2019-20 are shown in the inset. Total number of events in eWHIS = 12,627.

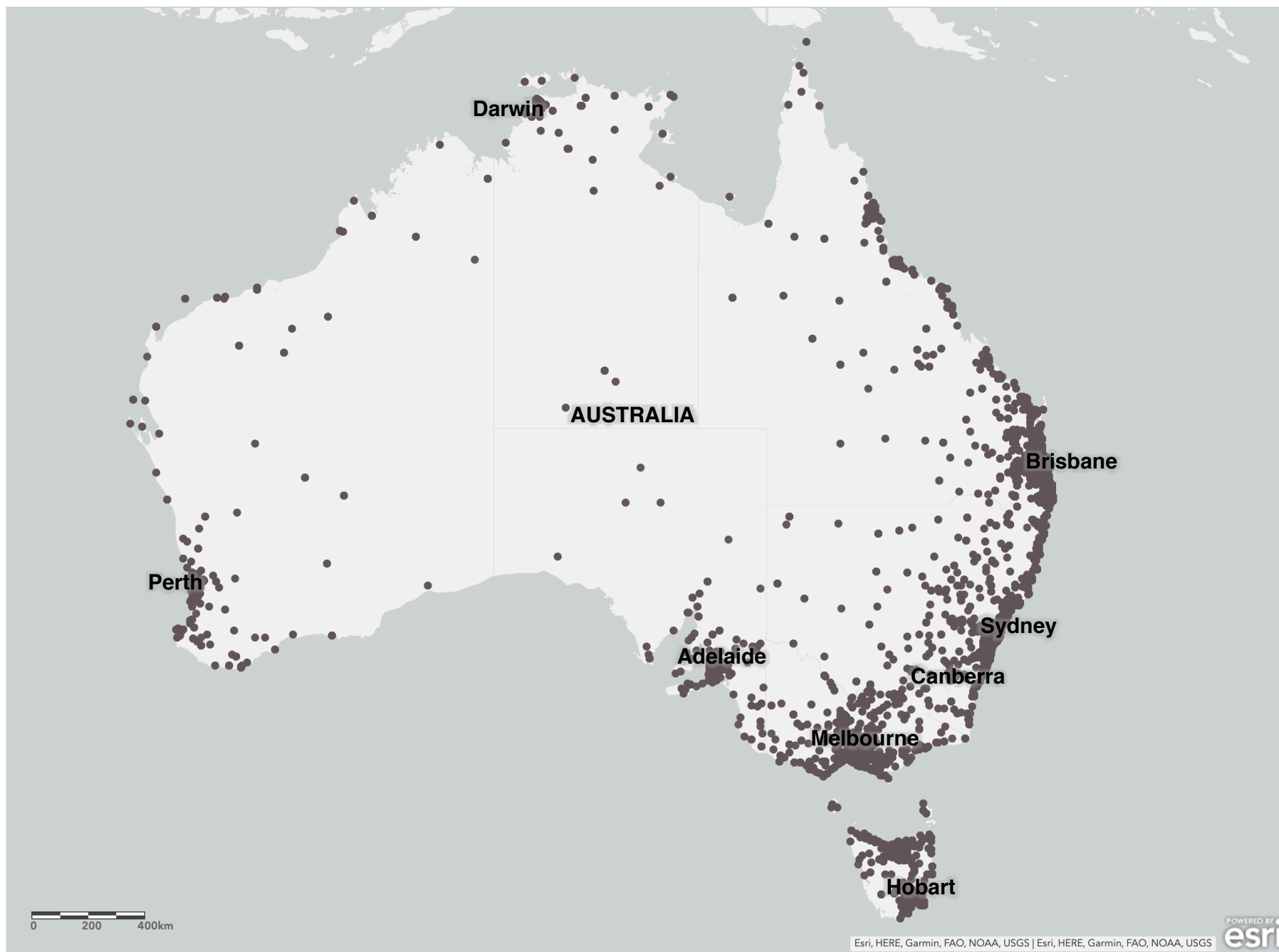


Figure 2: Area coverage of all wildlife disease events in eWHIS



## WHA Coordinator Group

The WHA Coordinator Group provides a framework for identification, coordination, discussion and reporting of wildlife disease information into the national wildlife health information system (eWHIS).

Each of Australia's state and territory agricultural agencies have a Primary WHA Coordinator. The Primary WHA Coordinators are appointed by their respective state or territory Chief Veterinary Officers or in the case of Australian Antarctic Territory, the Director of the Australian Antarctic Division. The Primary WHA Coordinators provide a primary point of contact for reporting wildlife disease events for each state or territory and also ensure that their Chief Veterinary Officers are kept informed of any national wildlife health issues or developments. Free-ranging native and feral animal disease events investigated through state agricultural agencies are entered directly into eWHIS by Primary WHA Coordinators. In 2019-20, these sources accounted for over 60 per cent of events in eWHIS.

To further promote collaborative links in the investigation and management of wildlife health, representatives from each jurisdiction's environment agency, WHA Environment Representatives, are included as part of Australia's general wildlife disease surveillance system. Each WHA Environment Representative works closely with their respective Primary WHA Coordinator and ensures a second point of contact in the jurisdiction.

In addition to the Primary WHA Coordinators and the WHA Environment Representatives, the national framework comprises the Australian Registry of Wildlife Health (Taronga Conservation Society Australia), CSIRO Australian Centre for Disease Preparedness (ACDP), the Zoo and Aquarium Association (ZAA), Northern Australian Quarantine Strategy (NAQS), Aquatic Animal Health (Australian Government Department of Agriculture, Water and the Environment; as required) and Animal Health Australia (AHA).

The national surveillance program is primarily funded through a cost-shared model with funding from the Australian Government Department of Agriculture, Water and the Environment and all Australian state and territory governments. In addition, the program is supported by an estimated additional \$1M per year in-kind from participating agencies and their laboratories. WHA also receives funding through the National Animal Health Information Program (NAHIP) and contributes regular reports to Animal Health Surveillance Quarterly (AHSQ) and Animal Health in Australia (AHiA). A number of other surveillance programs support and integrate with the WHA Coordinator Group.

## University Based Wildlife Disease Surveillance Program

The WHA Universities Focus Group has previously recognised the value of formalising the contribution of universities to Australia's national framework for wildlife disease surveillance. Based on the successful model of the Zoo Based Wildlife Disease Surveillance Program (page 24) seven Australian universities took part in a one-year pilot project, reporting wildlife events seen through their clinics and pathology departments into WHA's electronic Wildlife Health Information System (eWHIS). Following an independent review of the one-year pilot project, two universities (the University of Melbourne, the University of Queensland) joined

with the Zoo and Sentinel Clinic Wildlife Disease Surveillance Programs. This year Murdoch University also joined these programs. James Cook University, the University of Adelaide, Charles Sturt University and the University of Sydney continue to contribute to Australia's wildlife disease surveillance program via regular teleconferences with staff at WHA. A total of 12 university staff have been trained by WHA in use of the eWHIS database, selection of cases for reporting and general aspects of the national surveillance program. The university sector's integration into WHA's existing wildlife health surveillance system further facilitates the direct linkage of recognised experts working within Australia's universities with the national framework.

## Zoo Based Wildlife Disease Surveillance Program

The Zoo Based Wildlife Disease Surveillance Program is a collaborative project between WHA and the Zoo and Aquarium Association (ZAA), the peak representative body for zoos and aquariums in Australia. Wildlife disease reports from free-ranging and rehabilitation cases seen at the wildlife clinics of participating zoos are entered directly into eWHIS. Over **2,600** records from **250** different species have been entered by the zoos since the program began in 2010. The program continues to capture useful data, while also facilitating communication between the zoos and the state/territory WHA Coordinators.

There are ten zoos participating in this national program: Adelaide Zoo (SA), Australia Zoo Wildlife Hospital (Qld), Currumbin Wildlife Sanctuary (Qld), Healesville Sanctuary (Vic), Melbourne Zoo (Vic), Perth Zoo (WA), Sea World (Qld), Taronga Zoo (NSW), Taronga Western Plains Zoo (NSW) and Territory Wildlife Park (NT). Collectively, the **10** participating zoos see over **21,000** free-ranging wildlife cases every year. A total of **44** zoo staff have been trained by WHA, including use of the eWHIS database, selection of cases for reporting, and general aspects of the national surveillance program.

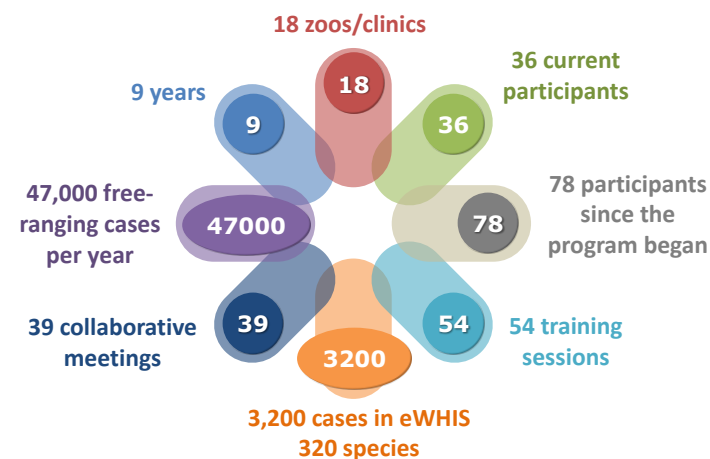


Figure 3: Zoo and Sentinel Clinic Surveillance Programs in numbers

## Sentinel Clinic Wildlife Disease Surveillance Program

The Sentinel Clinic Wildlife Disease Surveillance Program has been running since 2014, with a focus on veterinary clinics with a high or dedicated wildlife caseload, and those that expand the geographic or taxonomic range of the national surveillance system.

There are currently eight clinics participating in the program, covering a wide geographical range including northern WA, Far North Queensland and Tasmania. The clinics are: Boongarry Veterinary Services (Cairns), RSPCA Queensland Wildlife Hospital (Brisbane), Kingston Animal Hospital (Hobart), Mayfair Veterinary Clinic (Hobart), Lort Smith Animal Hospital (Melbourne), Adelaide Koala and Wildlife Hospital (Adelaide), Broome Veterinary Hospital (Broome) and Kimberley Vet Centre (Kununurra).

The sentinel clinics report wildlife disease events into eWHIS. The information provided by the clinics is used to better understand disease threats to biodiversity, human health and livestock, and contributes to our national picture of wildlife health. The sentinel clinic and zoo coordinators participate in joint teleconferences, providing opportunities to discuss interesting disease events and cases. In 2019-20, more than **47,000** free-ranging wildlife cases were seen by clinics participating in the zoo and sentinel clinic surveillance programs. This is an invaluable surveillance effort providing data that may not be otherwise available.



Figure 4: Wildlife disease surveillance partners - zoos, sentinel clinics & universities

## Support for wildlife disease investigations

The National Significant Disease Investigation (NSDI) Program is managed by Animal Health Australia (AHA) and subsidises veterinary practitioners who investigate and report on significant disease incidents in livestock and wildlife. For eligible events, funds are provided to the investigating veterinarian and to the laboratory for diagnostic testing. Since 2016 WHA has administered national NSDI Program funds for wildlife and continues to promote the program to WHA's surveillance partners and other private veterinarians. In addition, WHA supports investigations into current or ongoing wildlife disease events that might otherwise not proceed, utilising a wildlife disease investigation fund (WHA Wildlife Disease Investigation Fund) administered by WHA.

Wildlife disease investigations are often complex and logistically difficult. Funding made available through the NSDI Program and WHA Wildlife Disease Investigation Fund can support elements of field and diagnostic investigations to help achieve a diagnosis, and thereby allow an informed assessment of the risk of the wildlife health event to human health, livestock health and biodiversity.

This year NSDI and WHA wildlife disease investigation funds assisted **14** wildlife disease investigations, including:

- Mass mortality events in agile wallabies, greater gliders, lorikeets, wattletails, silver gulls and long-billed corellas
- Koalas with emaciation
- Neurological signs in an eastern grey kangaroo and in magpies and currawongs.

In addition to funding, in 2019-20 WHA provided support, input and/or coordination in response to approximately **108** requests as part of ongoing wildlife disease investigations across all Australian states and territories (approximately **9** events/month). The level of support provided by WHA varies from provision of background information about the disease and linkage to a subject matter expert, to facilitating national coordination and input, and undertaking disease risk assessments for government and others.

## Additional Surveillance Programs

WHA supports focus or working groups and other programs that form part of the framework of Australia's general wildlife health information system:

- Bat Health Focus Group
- National Avian Influenza Wild Bird Surveillance Program

### Bat Health Focus Group

The Bat Health Focus Group uses a collaborative, One Health approach to consider bat health issues in relation to the broader context of biosecurity, public health, domestic animal health, and environmental impacts in Australia. Members are from a range of organisations including Australian and state and territory government departments of agriculture, public health and environment, CSIRO Australian Centre for Disease Preparedness, universities, the Australasian Bat Society and the Australian Speleological Federation. There is a broad

range of expertise across the group including veterinarians, biologists, ecologists, virologists, epidemiologists and bat carers.

Working with the Bat Health Focus Group and WHA Coordinators, WHA maintains a national dataset of Australian bat lyssavirus (ABLV) testing. Summary reports of ABLV testing are provided in Animal Health Surveillance Quarterly (AHSQ) and published every six months in a dedicated publication 'ABLV Bat Stats'. Analysis for a peer-reviewed publication is underway. In 2019-20 WHA provided technical input into the Australian Veterinary Emergency Plan (AUSVETPLAN) for rabies, ABLV and other lyssaviruses, drawing on advice from the Bat Health Focus Group as needed. WHA also produces a monthly 'Bat News' e-newsletter of media and publications relating to bat health, with the aim of raising awareness and to counter misinformation about bat diseases. This year the group has been involved in assessing risk of SARS-CoV-2 transmission from human to bats and development of biosecurity guidance for those interacting with bats. See [page 31](#).





## National Avian Influenza and Avian Paramyxovirus-1 Wild Bird (NAIWB) Surveillance Program

In 2019-20 WHA continued to assist the National Avian Influenza Wild Bird (NAIWB) Steering Group to coordinate the NAIWB surveillance program. The primary areas of responsibility for WHA are management of the NAIWB surveillance program, and collation and reporting of surveillance data for avian influenza in wild birds in Australia. National funding is provided by the Australian Government Department of Agriculture, Water and the Environment and is matched by in-kind contributions from many collaborators including commonwealth, state and territory government agencies, non-government organisations, industry, and universities. Surveillance activities will continue through to the end of 2020.

Since July 2005, over **111,700** wild birds have been tested for avian influenza viruses (AIVs), with a subset of samples also tested for avian paramyxoviruses (APMVs), predominantly targeting APMV-1. Anseriformes (waterfowl) were primarily targeted with a small number of Charadriiformes (shorebirds) also sampled. Locations focused on areas with known mixing of shorebirds and waterfowl and/or those in close proximity to poultry and humans.

Between July 2019 and June 2020 pathogen-specific, risk-based surveillance was conducted by sampling apparently healthy, live and hunter-shot wild birds at sites in New South Wales, Northern Territory, Queensland, South Australia, Tasmania, Victoria and Western Australia. A total of **5,559** faecal environmental swabs and/or cloacal swabs collected from waterbirds were tested for AIVs, with a subset ( $n=1,610$ ) also tested for APMV-1. No highly pathogenic AIVs nor virulent strains of APMV-1 have been identified. However, targeted surveillance activities continued to find evidence of low pathogenicity avian influenza (LPAI) viruses, including LPAI H1, H2, H3, H4, H5, H6, H7, H8, H9, H10, H11, H13 and H16, as well as avirulent strains of APMV-1.

Given Australia's geographic and ecological isolation, it is important that assumptions about AIV and APMV-1 epidemiology in Australia are not based entirely on studies from overseas. In particular, it is extremely important to maintain and update Australia's capacity to rapidly and reliably test for AIV and APMV-1 in Australian poultry and wild birds as these viruses undergo constant evolution. Detections of AIV and APMV in poultry are relatively rare in Australia, and hence samples from wild bird surveillance programs provide the principle source of AIV and APMV-1 sequence data necessary to monitor the ongoing evolution of Australian-specific lineages. These detections also allow regular evaluation of primer target sequence variability. This reduces the possibility of detection failure which could result from tests based solely on historical or non-Australian strains.

In addition to ongoing surveillance activities, three special projects are being undertaken in collaboration and consultation with the NAIWB Steering Group to analyse epidemiological and sequence data collected through the program.

The NAIWB Surveillance Program is one of Australia's longest running wildlife surveillance programs. There are many sensitivities around the capture, collation and management of the data generated. A significant achievement of the Program this year was the launch of Wild Bird News, which makes the results of this program available to the general public.

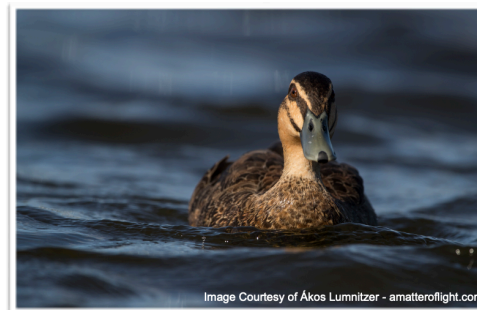
In 2019, the NAIWB Steering Group launched **Wild Bird News** now published on the **WHA website**.

Wildlife Health Australia

AI News | Jun 2019 | 1

# Wild Bird News

National Avian Influenza Wild Bird Surveillance Newsletter - June 2019



## Contribution to national laboratory diagnostic capacity and capability

In response to the emergence of HPAI H5N1 in Asia, national surveillance for avian influenza (AI) in wild birds was further strengthened in Australia in 2006 and included the establishment of the National Avian Influenza Wild Bird (NAIWB) Steering Group. The group ensures national coordination and collaboration of wild bird surveillance activities.

NAIWB surveillance activities are conducted Australia-wide, with funding provided by the Australian Government Department of Agriculture, Water and the Environment, in addition to in-kind support provided by the jurisdictional agencies, researchers and representative's institutions.

Activities comprise two sampling components:

- Targeted surveillance (samples are collected from known wild bird reservoirs - e.g. waterfowl - at key locations, and tested for specific pathogen(s) such as AIV), and
- General surveillance (investigation of significant, unexplained morbidity and mortality events in any species of wild bird, with a focus on exclusion testing for AIV).

Find out more in [Wild Bird News - December 2018](#).

Analysis of AIVs from wild birds provides valuable ecological, epidemiological and genomic information that contribute to strategic risk assessment, management and communication.

## Avian Influenza Virus

To date, 16 haemagglutinin (HA; H1-H16) and 9 neuraminidase (NA; N1-N9) subtypes are recognised in birds. **Waterfowl and shorebirds are the main natural reservoirs and rarely show signs of disease.** Avian Influenza Virus (AIV) can cause significant infectious disease in domestic poultry and can also infect and/or cause disease in a range of other species including wild birds and humans<sup>1,2</sup>.

**Of global concern** is the capacity of AIV subtypes H5 and H7 to mutate from Low Pathogenicity (LPAI) into **High Pathogenicity (HPAI)** forms which can cause significant losses in both poultry and wildlife.

## AIV in Australia

Whilst **HPAI H5 viruses have not been detected in Australia**, there have been seven outbreaks due to HPAI H7 viruses in commercial poultry operations since 1976 in Victoria, Queensland and the last in 2013 in New South Wales<sup>3,4,5,6,7,8</sup>.

Mortality due to AIVs have not been reported in feral or native free-ranging birds<sup>9</sup>. However, **LPAI viruses have been detected in wild birds in Australia**.

Given Australia's geographic and ecological isolation, **it is important that assumptions about AIV epidemiology in Australia are not based entirely on studies from Asia, Europe or North America**<sup>10,11</sup>.

More info: [WHA FACT SHEET](#)

## AREA OF FOCUS: EDUCATION AND TRAINING

The objective for the area of focus of Education and Training within the WHA Strategic Plan is:

- In collaboration with our members, contribute to, support and improve education and training in wildlife health.

The main task to achieve this objective is to support the University Sector in development of harmonised, nationally accredited, undergraduate courses in wildlife health that can contribute to training the next generation of wildlife health professionals.

### Key performance indicators are:

- One new undergraduate course in wildlife health launched by February 2022.

### The outcome is:

- Increased problem-solving capability and capacity for wildlife health issues in Australia.

### Future-proofing

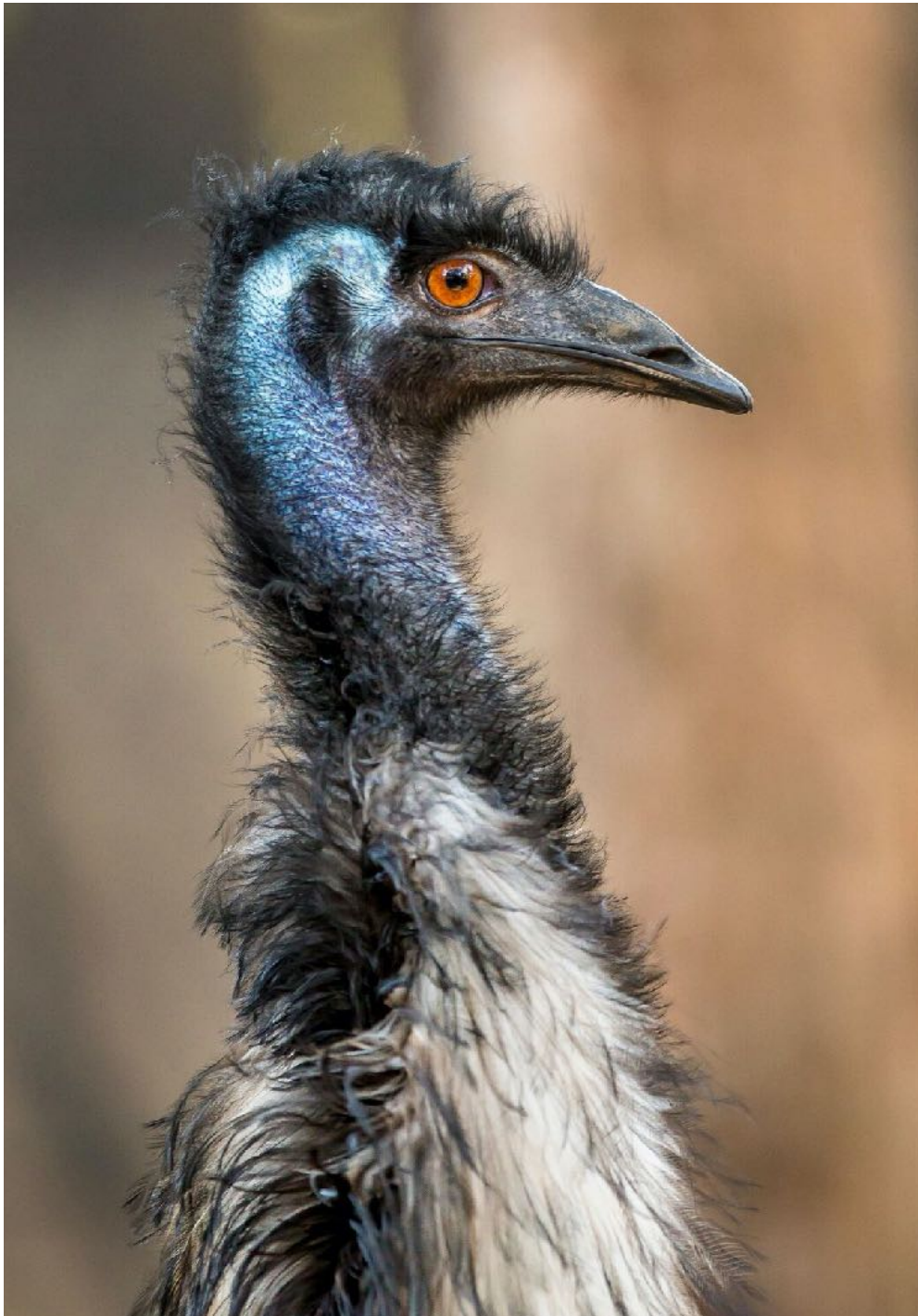
Assisting members in future-proofing Australia's wildlife health status is an important objective for WHA. One of the tasks to achieve this objective is to increase Australia's capacity for education and training in wildlife health by facilitating, contributing to and delivering education and training courses in wildlife health and preparedness. The primary objective is to ensure that the broader community is aware of the importance of wildlife health and what, how and to whom to report. Education and training activities are, however, resource heavy. WHA members contribute in this area if and when external funding can be secured. As with its surveillance activities, increasing awareness amongst non-government wildlife stakeholders of Australia's biosecurity system and their role within it is a very high priority.

## National Guidelines for Management of Disease in Free-ranging Australian Wildlife

A focus of activities for staff at head office has been the development of national guidelines for the management of disease in free-ranging Australian wildlife. The guidelines are an overarching summary document outlining the options available for managing disease in Australian wildlife in an Australian context. With the assistance of the Department of Agriculture, Water and the Environment, the guidelines will be available from November 2020 for all those with an interest in managing disease in wild populations of animals.







## Other activities

As well as research, preparedness, communications, surveillance and education and training, WHA contributes to a number of other activities that support our national system.

## International activities and support for Australian World Organisation for Animal Health (OIE) focal point activities

WHA supports Australia in its international good citizen role. The importance of healthy wildlife populations is recognised by the World Organisation for Animal Health (OIE), the influential global intergovernmental organisation responsible for improving animal health worldwide. An important activity for the OIE is to improve surveillance and diagnostic tools for wildlife, to include wildlife diseases in chapters of the Terrestrial Code and to include wildlife as part of the work of regional and specialist Commissions.

Australia's OIE Focal Point for Wildlife is Dr Tiggy Grillo, our National Coordinator, who provides support for Australia's OIE Delegate, our Chief Veterinary Officer, Dr Mark Schipp. Activities in this role include management of eWHIS, recording and interpreting wildlife disease information from official and non-official sources to assist Australia reporting on OIE listed disease and non-listed diseases of wildlife. The Focal Point engages in regional and national wildlife health issues and provides advice on wildlife issues to state and Australian Government agricultural, human health and environmental agencies. Through the Focal Point, WHA also engages with members to assist the OIE Delegate to ensure that Australia's scientific view and position relating to wildlife is considered when developing international policies and guidelines. WHA assists members by acting as the link between Australia and overseas wildlife health centres and focal points for wildlife within the region and internationally. To view Australia's reports to the OIE, you can visit [WAHIS-Wild](#) and [WAHIS interface](#).

Australia's OIE Focal Point for Wildlife is Dr Tiggy Grillo who provides support for Australia's OIE Delegate, our Chief Veterinary Officer, Dr Mark Schipp to ensure Australia's reports to the OIE on listed and non-listed diseases include reports in wildlife.

A small scientific advisory group, the OIE's Working Group on Wildlife (WGW) provides advice to OIE on health problems relating to wild animals, whether in the wild or in captivity. WHA's CEO Dr Rupert Woods is a member of this group and assists in bringing an Australian perspective. A very high priority this year for this group has been work relating to wildlife, African swine fever, COVID-19, the wildlife supply chain and wildlife markets.

International collaborations are maintained via regular communication with the Canadian Wildlife Health Cooperative and the USGS National Wildlife Health Center, as well as via participation in an international working group on national wildlife health programs.



The international working group provides a forum for discussion to share experiences, insights and evidence to help improve and harmonise national wildlife health programs globally and resulting in a recent report outlining the essential functions and capabilities of a national wildlife health program. This year WHA's CEO Dr Rupert Woods also assisted the Canadian Wildlife Health Cooperative as part of a small working group examining the future for the Canadian system.

## Support for environmental health and biosecurity

Wildlife health is an important area for ecosystem health and environmental biosecurity. "Wildlife health" means the physical, behavioural and social wellbeing of free-ranging animals at an individual, population and wider ecosystem level, and their resilience to change. Diseases in wildlife can lead to species extinctions (e.g. the introduction of chytridiomycosis in frogs in Australia) or severely impact upon populations (e.g. Tasmanian devil facial tumour disease). The risks will become greater with changing land use, climate change, animal movements and as societal attitudes bring wildlife, livestock and people into closer contact. It is essential that Australia has the ability to effectively identify and manage these risks.

Since its inception, WHA and its members have provided *ad hoc* support for national environment and biodiversity programs including:

- WHA representation on the Koala Health Hub Advisory Committee, University of Sydney, NSW
- WHA representation on the International Union for the Conservation of Nature Wildlife Health Specialist Group
- Coordinating biodiversity investigations that involve disease
- Input into national, state and territory policies, guidelines and plans
- Provision and maintenance of fact sheets with information on diseases that may impact upon biodiversity and
- Raising awareness of diseases with potential biodiversity impacts through the WHA Digest and Bat News.

Almost every project or program involving environmental health or wildlife biodiversity involves one or more WHA members. This is a very significant opportunity for influence and change. In addition, in 2019-20 WHA made submissions on behalf of its members to the following national reviews, consultations and enquires:

- National Biosecurity Environmental Response Agreement (NEBRA) Review
- Consultation on the National Environmental Science Program
- Independent review of the Environment Protection and Biodiversity Conservation Act 1999
- The Royal Commission into National Natural Disaster Arrangements arising as from the 2019-20 bushfires

This year **WHA developed a statement on climate change**, an issue that many members feel strongly about. WHA accepts the overwhelming scientific evidence that human activity is contributing to climate change. Climate change poses an enormous and growing threat to Australia's wildlife and natural environments. Climate change is already having a negative impact on wildlife in Australia (and globally) and is a significant and immediate issue for wildlife health. Wildlife populations already made vulnerable through human-mediated impacts such as habitat loss, introduced predators and diseases, will be further endangered by the cumulative effects of a warming, drying and more extreme climate in Australia. There is a growing body of research demonstrating the effects of climate change on emerging infectious diseases of both humans and animals. WHA calls for urgent action to mitigate the impacts of human-induced climate change. We support government and non-government policies and community practices that will help to achieve this aim. We undertake to actively promote efforts to monitor and manage changes in pathogens and disease in wildlife, including zoonotic diseases, due to climate change.

WHA members also continued to contribute to risk assessment and management in the environmental health area. Members are working with the Australian Government Department of Agriculture, Water and the Environment, the Australasian Bat Society and the Australian Speleological Federation to prevent the introduction of the nationally notifiable exotic disease white-nose syndrome (WNS) into Australia. WNS is a fungal disease of bats that has caused significant declines in insectivorous bat populations in North America. It has not been identified in Australia. There is a suite of **WNS documents on the WHA website**, including a disease risk assessment for introduction of WNS to Australian microbats, response guidelines to assist response agencies should the disease be introduced, and guidelines aimed at early detection and identification of an incursion.

WHA has presented on WNS at conferences and meetings to raise awareness of the risk of this disease among veterinarians, bat researchers and cavers, and sponsored a small research study to survey cavers about their knowledge of WNS and biosecurity practices. WHA is represented on the national recovery team for the southern bent-winged bat, which is a critically endangered species that has been identified as at-risk from WNS if it were introduced. A significant achievement this year was the listing of WNS as a nationally notifiable animal disease, the culmination of many years of work for our concerned government and non-government partners.

In 2019-20 WHA also participated in a workshop organised by the University of Melbourne to conduct a disease risk assessment for birds at Ramsar Wetlands in Port Phillip Bay and Bellarine Peninsula.

## Support for human health – Antimicrobial resistance and COVID-19

Most emerging diseases that affect people arise from wildlife. In 2019-20 WHA provided support for national human health programs as required. This was primarily around zoonoses and emerging infectious disease, antimicrobial resistance (AMR) in addition to involvement in a number of *ad hoc* activities including:

- Support for the Bat Health Focus Group and National Avian Influenza Wild Bird Surveillance Program
- Providing information on significant zoonotic diseases that involve wildlife on the WHA website
- Providing *ad hoc* information to the Australian Government Department of Health on wildlife disease events that may involve human health and
- Providing *ad hoc* information to the Australian Government Departments of Agriculture, Health and the Environment on wildlife and antimicrobial resistance.

The potential role of environmental contamination in the transfer of AMR between wildlife, domestic animals and humans has been documented, and highlights the need for further surveillance and research to determine the extent and significance of this process. Cases of multi-resistant bacterial infections and AMR in free-ranging wildlife in Australia are reported to WHA through the national wildlife disease surveillance program. In 2019-20, WHA was approached to provide a wildlife and environment perspective to the Australian Strategic and Technical Advisory Group on Antimicrobial Resistance (ASTAG). Management Committee member, Associate Professor David Phalen of University of Sydney, volunteered for this role and has represented the wildlife community as an observer on this group. As well as its many other activities, WHA also tracks research occurring on AMR and free-ranging wildlife and there is the opportunity to capture further surveillance data from these and other projects into eWHIS. AMR is a significant challenge for Australia and the world. AMR activities undertaken by WHA are currently un-funded and occur largely *ad hoc*. Greater investment and coordination in the environmental area is required before it can be considered that Australia has a true One Health approach to this issue.

In response to the COVID-19 pandemic, Australia has played a lead role in progressing action to better understand and manage the risks of SARS-CoV-2 and disease spillover from wildlife to people. Within the very early stages of this virus emerging in humans in China, WHA updated the fact sheet on coronaviruses in Australian bats and produced a new fact sheet on the Novel Coronavirus Disease (COVID-19) (first published on 3 February 2020) which included guidance for wildlife carers, field researchers, and others interacting with wildlife. With the increasing amount of public information being generated relating to SARS-CoV-2 in animals, WHA provided curated information to key government and non-government agencies, including the Australian Department of Health (in January 2020) and subsequently developed a bespoke *COVID-19 and Animals Digest* for WHA members in February 2020.

WHA also recognised the human and animal welfare impacts and assisted members in developing a position statement on essential wildlife services during COVID-19. In April 2020 WHA established a working group involving government and non-government members of the Bat Health Focus Group ([page 26](#)), state/territory WHA Coordinators, Environment Representatives, and other experts and stakeholders to consider the potential risk of transmission of SARS-CoV-2 from humans to bats. The working group developed biosecurity guidance for bat carers, researchers and others interacting with bats. A small subgroup commenced work on a formal assessment of the risk of SARS-CoV-2 transmission to bats, which will be delivered in 2020-21.

There is now widespread international understanding of the importance of taking decisive action and altering global processes in wildlife trade to mitigate the risk of future zoonotic disease pandemics. The Australian Government has taken a lead role in calling for major reforms in the international trade in wildlife; particularly in wildlife wet markets and along the wildlife supply chain. This includes immediate steps to target known high risk activities and further investigation to determine factors within wildlife wet markets and along supply chains that can provide the circumstances for the development of zoonotic pandemics.

Work to help prioritise and support national efforts to combat COVID-19, wildlife disease emergence and risk management will continue as a high priority into 2020-21.

## Support for the Australian Pesticides and Veterinary Medicines Authority (APVMA)

Since 2009, WHA has provided informal annual reports to the APVMA's Adverse Experience Reporting Program on poisoning events in wildlife, and relevant information on an *ad hoc* basis e.g. for chemical reviews. Intoxications associated with off-label use of chemicals is a common cause of mass mortality and other mortality events in wildlife in Australia and on-going monitoring is indicated ([See WHA Fact Sheet: Pesticide toxicity in Australian native birds](#)).

As well as routine reporting, WHA also provided a submission to the APVMA Consultation on Use Patterns for Anticoagulant Rodenticide Products. Non-target poisoning of native wildlife with anticoagulant rodenticides is a significant global concern. Exposure to anticoagulant rodenticides has been reported in a broad range of species and geographic areas of Australia and is implicated in wild bird mortality events in Australia. Further research is needed to understand the impact of anticoagulant rodenticides on native wildlife populations. We recommended increasing the oversight, regulation and stewardship of anticoagulant rodenticide product usage in Australia, following the approaches of other countries such as the United States Environmental Protection Agency and European Chemicals Agency. Monitoring native species exposure to anticoagulant rodenticides is critical to understanding the impact and assessing the effectiveness of any regulatory changes.

We also supported research projects by universities and not-for-profit organisations planning to undertake wildlife surveys to document the presence and levels of exposure of anticoagulant rodenticides or lead in birds of prey.

## Contribution to national policy development

On behalf of the Australian wildlife community, WHA contributes to relevant national and state and territory policy documents, committees and working groups including the Series of National Guidelines (SoNG), Australia's Veterinary Emergency Plan (AUSVETPLAN), InvasivesPLAN, AnimalPLAN and Threatened Species Recovery Plans. In 2019-20 we also made a number of submissions regarding native wildlife, feral animals and health and diseases, including to the: National Biosecurity Environmental Response Agreement (NEBRA) Review; Independent review of the Environment Protection and Biodiversity Conservation Act; Royal Commission into National Natural Disaster Arrangements and Australian Pesticides and Veterinary Medicines Authority (APVMA) consultation on use patterns for anticoagulant rodenticide products. Our submissions can be found on the [WHA website](#).

This year the wildlife community has also made a significant contribution to development of a National Priority List of Exotic Environmental Pests and Diseases, which has been facilitated by the Australian Bureau of Agricultural and Resource Economics and Sciences. Development of the list follows recommendations made in the 2015 Senate Environment and Communications References Committee report into environmental biosecurity, as well as recommendations in the report from the independent review of the capacity of the national biosecurity system and its underpinning Intergovernmental Agreement. The purpose of the Priority List is to facilitate activities to help prevent the entry, establishment and spread of exotic pests, weeds and diseases that may have nationally important impacts on Australia's environment or social amenity. The project is part of a collaborative partnership with key stakeholders, which includes WHA members and staff.

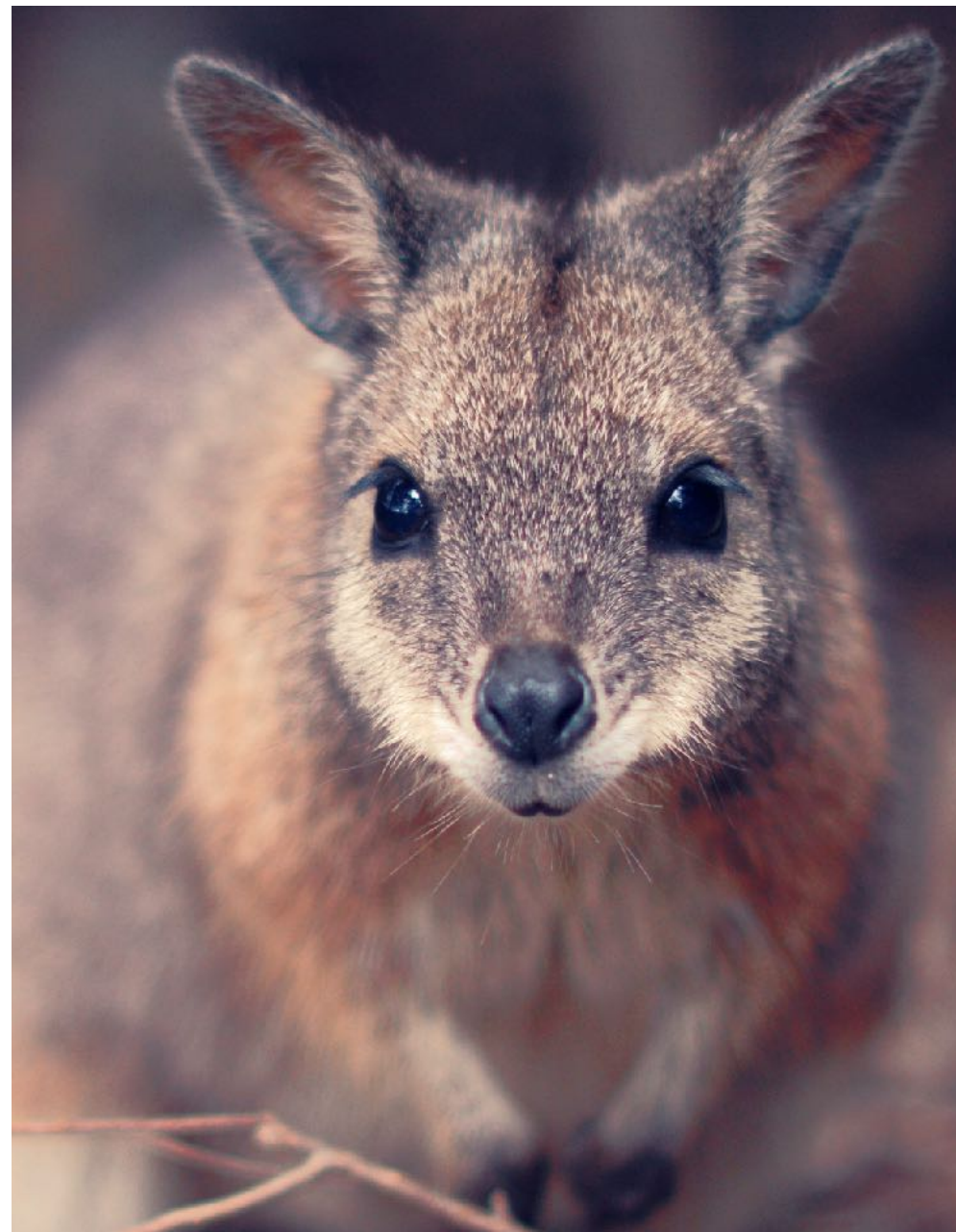
The Priority List will help:

- Raise government, industry and community awareness of environmental pests and diseases
- Strengthen preparedness and response capabilities
- Inform research and development.

The Priority List covers eight thematic groups, one of which is for native animal diseases and their pathogens. This list will help with prioritising future wildlife health activities (e.g. development of response plans, surveillance activities and awareness campaigns). The wildlife community this year identified five priority exotic diseases:

- Duck viral enteritis / duck plague (Anatid herpesvirus-1)
- Exotic West Nile virus (other than WNV lineage 1b (Kunjin virus))
- Pacheco's disease and internal papillomatosis disease (Psittacid herpesvirus-1)
- Proventricular dilatation disease (Parrot bornavirus (PaBV))
- White-nose syndrome of bats (*Pseudogymnoascus destructans*).

This year one of the diseases, white-nose syndrome of bats, has been listed as nationally notifiable ([page 30](#)).







# Section 4: Our Finances

## Operational result

WHA operates under a cost-shared, core funding model with funds provided by all Australian governments. Though WHA's total income for the financial year was approximately \$1M it is important to note that its 787 individual members, 40 organisational members and over 120 service partners contributed approximately \$5.6M to achieving the objects of the organisation as in-kind contributions. The estimated on-going in-kind contributions from various sectors are: zoo-based veterinarians (\$2,500,000), private veterinarians (\$2,000,000), Commonwealth, state and territory participating agencies and their laboratories (\$940,000), university clinics and laboratories (\$172,200) and members of the Management Committee and others (\$4,500). A cash contribution of \$34,454 from Australia's production animal industries is also provided by the coordinating body for the health of Australia's production animal industries Animal Health Australia. The cash contribution of Australian governments and industry towards wildlife health in Australia is therefore levered approximately five to one. WHA is a more significant body than the relatively small total income and staff numbers would suggest and with its members makes a significant financial commitment to the progression of wildlife health in Australia.

WHA undergoes independent audit each year. The WHA Audit and Risk Committee provide oversight. The audited accounts and recommendation are received by the Management Committee towards the end of each calendar year and are available on request. Total income was \$1,162,845 and total expenses \$975,384. The majority of costs were project expenses (\$469,527), employment benefit expenses (\$296,046), and rental expenses (\$32,344). The approximate breakdown of 2019-20 core income and core project expenses expenditure are presented as percentages ([page 34](#)).

The net allocation of core to fund ring-fenced projects was \$131,868, leaving WHA with total comprehensive income of \$40,362 for 2019-20. The majority of total comprehensive income was a result of savings made on cancellation of travel and a number of face-to-face meetings due to COVID-19.

Detailed information regarding income and expenditure for special (or "ring-fenced" projects) and WHA's financial situation is available in the audited financial reports.

Though WHA's total income for the financial year was approximately \$1M it is important to note that its **787** individual members, **40** organisational members and over **120** service partners contributed approximately **\$5.6M** to achieving the objects of the organisation as in-kind contributions. With its members, WHA makes a significant financial commitment to the progression of wildlife health in Australia.

# Future Funding

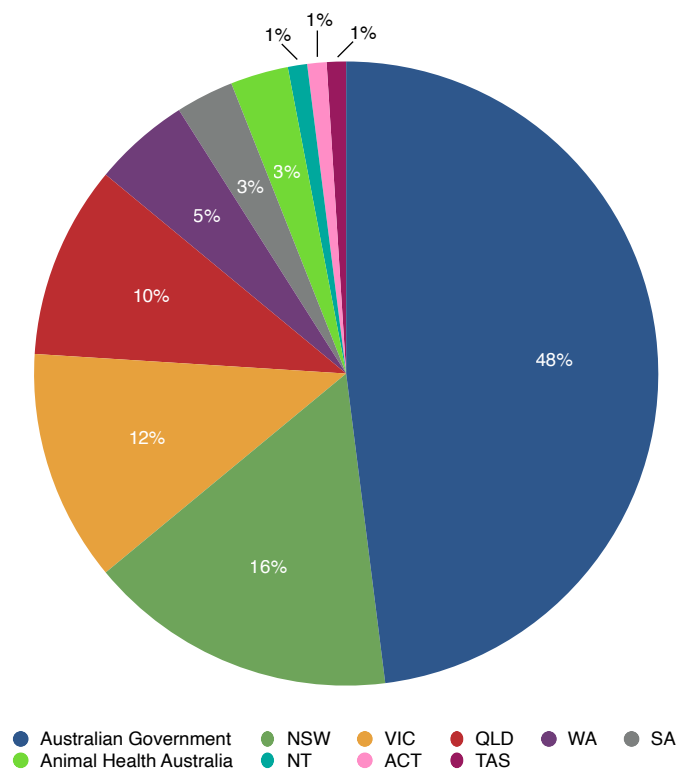
A recent review of WHA activities found that the formation of WHA has significantly improved coordination of surveillance and responses to all wildlife diseases in Australia. This has been achieved at a low cost relative to much larger benefits, implying a substantial public return on the investment in the WHA network. Importantly, networks formed and administered by WHA and its predecessor AWHN, have regularly provided information and intelligence to Australian governments that they did not already know. Furthermore, the national system provides something that jurisdictions cannot: coordinated national wildlife health activities. Achieving the levels of communication and cooperation required for these networks to remain an effective resource requires ongoing effort by a nationally focused organisation. Without the WHA network, it was concluded as being unlikely that Australia would have a national framework for managing wildlife health issues.

There was a strong recommendation that the WHA network was well suited to assist Australian governments with wildlife health surveillance and its activities should continue.

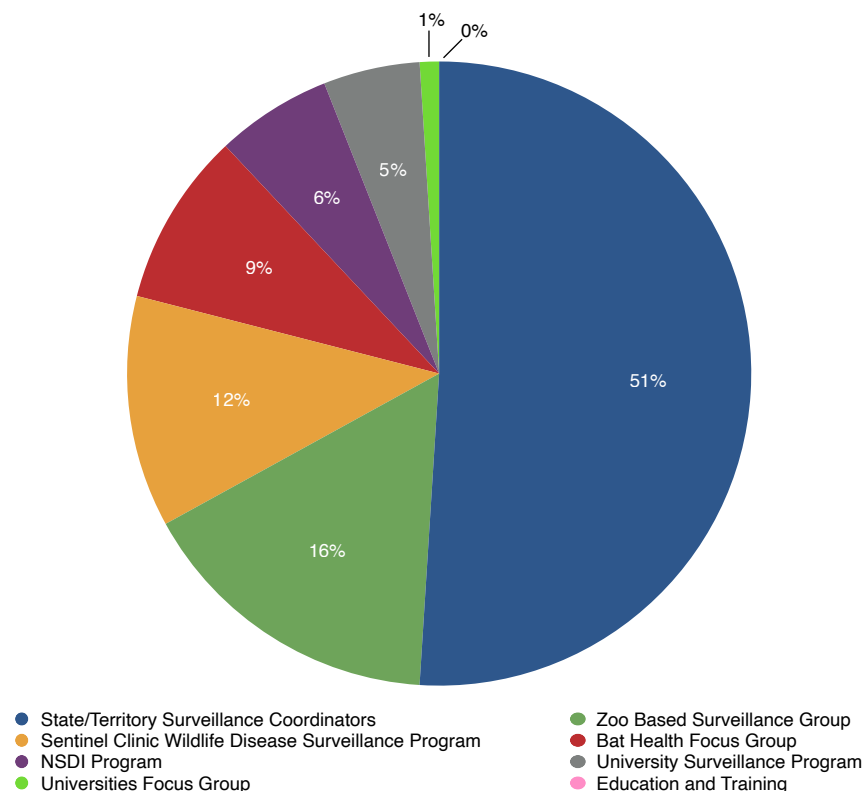
However, the role of the national system should be broadened to include greater focus on environment, activities which would also be expected to support human health, tourism and biosecurity by widening the networks of individuals and organisations trained and primed to report unusual disease incidents. Increasing pressure is also increasingly being brought to bear by stakeholders for the national system to address other wildlife health activities, such as bushfire preparedness and endemic wildlife health and disease issues.

As part of future planning the WHA Management Committee has determined that the core contributions for funding of WHA are insufficient to meet the expectation of funders and additional resources will need to be found before the national system can assist. This will be a priority for the Management Committee in coming years and will be considered as part of future planning activities ([page 35](#)).

**Income for Core Projects  
2019-20**



**Expenditure for Core Projects  
2019-20**







## Section 5: Planning and Priorities for 2020-21

### Priorities for 2020-21 include:

1. Continuing to support our member organisations and individuals in their efforts to continue to build Australia's wildlife health system by providing leadership and facilitating funding and action. A high priority is assisting in development of potential models for a proposed Australian Wildlife Health Institute.
2. A planning exercise aimed at generating practical, sustainable development pathways for organisations and groups involved in wildlife health in Australia.
3. Supporting the National Biosecurity Committee, Animal Health Committee, Environment and Invasives Committee and Australia's states and territories as directed by assisting in delivery of the wildlife health component of any national animal health strategies that may involve wildlife and the need for national coordination, including AnimalPLAN and InvasivesPLAN.





# Other Important Information

## Join us - Become a member

WHA aims to link, inform and support people and organisations who work with or have an interest in wildlife health across Australia through technical advice, facilitation, communications and professional support. By becoming a member of WHA, you join a network of stakeholders with an interest in wildlife health.

Membership forms are available on our website, [www.wildlifehealthaustralia.com.au](http://www.wildlifehealthaustralia.com.au), or via direct link here: **WHA Membership Form**.

## Donations, bequests, and corporate partners

By making a tax-deductible donation to the Wildlife Health Australia Public Fund, you will be supporting an organisation that is working to protect our amazing wildlife for future generations.

Donations can be made here: [www.wildlifehealthaustralia.com.au/Donations.aspx](http://www.wildlifehealthaustralia.com.au/Donations.aspx)

If you would like to discuss leaving a gift for Wildlife Health Australia in your will, please contact Rupert Woods, CEO, on 0438 755 078, or [rwoods@wildlifehealthaustralia.com.au](mailto:rwoods@wildlifehealthaustralia.com.au)

WHA is a sponsorship-friendly organisation looking for partners. Please contact Rupert Woods, CEO, at [rwoods@wildlifehealthaustralia.com.au](mailto:rwoods@wildlifehealthaustralia.com.au) if you are interested or would like to chat.

## Acknowledgements

WHA acknowledges the traditional owners of country throughout Australia and their continuing connection to land, sea and community. We pay our respects to them and their cultures and to their Elders past, present and future.

WHA would like to thank its members, supporters and employees for their dedication and commitment to the ongoing development of Australia's wildlife health system.

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