

Society and science: a new approach to wildlife disease surveillance



Wildlife diseases are a growing and significant threat to biodiversity.

The great majority of emerging wildlife diseases are ultimately the product of anthropogenic factors

The damage to biodiversity by feral cats, rats and foxes can potentially be eclipsed by wildlife disease

Team

- Andrew Peters – Vet, Leading Australian wildlife health academic
- Helen Masterman-Smith – Senior Lecturer Sociology
- John Rafferty – Environmental Educator
- All key biosecurity agencies (NSW DPI, NSW OEH, Australian CEBO/DAWR, WHA)

Q: “What do you do?” A: “I am EE”

So you’re a.....

- What is your best?
- Activist
- Subversive
- Dissident
- Socialist
- Extremist
- Insurgent
- Hippie
- Eco-terrorist
- Professional Protestor
- Leftie
- Domestic terrorist
- Radical
- Socialist
- Communist*

Disease

- Bellinger River Turtle virus,
- Hendra virus in flying foxes,
- Psittacine Beak and Feather Disease in threatened parrots,
- chytridiomycosis in frogs,
- flying fox heat stress events,
- kangaroo mass mortalities including invasive plant toxicities and viral infections,
- waterfowl mass mortalities including botulism,
- and psittacosis in diverse bird species



Australia's existing wildlife disease surveillance system was designed for the purpose of agricultural trade protection and has been co-opted to serve environmental and human health.

Involves multiple processes and involves
poor taxonomic and spatiotemporal
coverage.

Citizen Science

- ACSA program finder 450+ programs

FrogID records over a 12 month period

- 66,000 records
- 13% of all frog records



Global eBird SC observations

- 550 million observations in 12 months



What's new

The wildlife disease surveillance system we build will be the first ever designed through robust sociological research to satisfy the needs of diverse expert and community participating stakeholders to ensure sustainability.

Stakeholders include organisations and individuals engaged in

Education

Conservation

land management

Agriculture

tourism or outdoor
recreational activities

wildlife rehabilitators

Landcare Australia

natural history clubs,
ecotourism operators,
bushwalking and
birdwatching clubs,
farmer cooperatives and
collectives
and, importantly,
schools.

Sociological analysis will focus on stakeholder motivations, needs, capabilities, capacities, opportunities, barriers to participate in wildlife disease surveillance and solutions.

This will, for the first time, enable extremely rapid detection of emerging wildlife diseases.

Importantly, the data signal emerging from a big data, community and expert-based participatory wildlife disease surveillance system will be profoundly different from that provided by existing national wildlife health systems.

Of note is the capacity for such a system to potentially detect, in real time, statistically unlikely reporting events - "hotspots of reporting" - enabling extremely rapid investigation by responding agencies.

For the first time, a wildlife disease surveillance system will be built that acts to mainstream wildlife health in the broader community, and that meets the needs of that community.



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Report Online

Reports of garden wildlife disease or mortality are very important to inform our understanding of wildlife health in Great Britain. By submitting a **Disease Incident Report (DIR)** you will be contributing directly to a better understanding of the ailments affecting wildlife in Britain.

REPORT SICK OR DEAD WILDLIFE

Thank you for choosing to report an incident of illness or death in garden wildlife.

What to be part of it???

- Trialing in Riverina, 2020
- Then moving Nationally 2021
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