

High Pathogenicity Avian Influenza and Wild Birds

Advice for bird banders, wildlife rangers and researchers

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Summary

This advice has been prepared for individuals or groups who may observe or handle wild birds, such as bird banders, wildlife rangers and researchers.

High pathogenicity avian influenza (HPAI) is an infectious disease which has the potential to cause severe illness in poultry and other species of birds, including wild birds. HPAI can also cause disease in mammals, including rare cases in people.

Since 2021, a new strain of HPAI has caused significant illness and deaths in poultry and wild birds on all continents except Oceania (Australia and New Zealand) and mainland Antarctica. Mortalities have been observed in a wide range of bird species, seen as individual bird deaths and mass mortalities. Recent research has determined that the likelihood of this new strain entering Australia via migratory birds has increased compared to previous years¹, with August to November the period of particular concern as this is when migratory birds return to Australia from the northern hemisphere.

While there are many other possible causes of wild bird illness and mortalities, it is important that individuals or groups who may observe or handle wild birds are aware of HPAI, to ensure an appropriate investigation is undertaken and to ensure risks to themselves and other animals are minimised.

Any unusual signs of disease or mass mortality events in wild birds should be reported via the [Emergency Animal Disease Hotline on 1800 675 888](#).² Further details of what to look for are included [below](#).

What is avian influenza?

Avian influenza (also known as bird flu) is a viral disease caused by influenza A virus. Strains of avian influenza are categorised as either low pathogenicity (LPAI) or high pathogenicity (HPAI) depending on the potential severity of disease caused in poultry. LPAI viruses naturally occur in wild birds in Australia, notably waterfowl (ducks, geese and swans) and shorebirds, with little ill effect. H5N1 is the strain of HPAI currently causing the global outbreaks of disease. This strain of HPAI has not been detected in Australia.

For further details about avian influenza in wild birds see the [WHA fact sheet](#).

Which species are affected?

- **Birds:**
 - It should be assumed that all bird species may be infected by HPAI virus.
 - **Wild birds (native and feral species):** a wide range of species can be infected with HPAI. It should be assumed that all bird species may be infected by HPAI virus.
 - **Domestic poultry and captive birds:** poultry (e.g. chickens, turkeys) are particularly susceptible to infection with HPAI virus.

¹ M.Wille and M.Klaassen, unpublished data

² The **Emergency Animal Disease (EAD) Hotline** is a toll-free number that connects callers to the relevant state or territory officer. Anyone suspecting an EAD outbreak should use this number to get immediate advice and assistance.

- **Mammals:**
 - Sporadic infections identified as HPAI in poultry have been reported in nonhuman mammals.
 - **Wild mammals (native and feral species):** mammals, especially carnivores and marine mammals, are known to be susceptible to HPAI. Infection of terrestrial carnivores is presumed to occur via consuming infected birds. Infection of marine mammals is thought to have occurred via close contact with, or ingestion of infected birds, or contact with marine environments contaminated with virus from infected birds.
 - **Domestic mammals:** a range of mammalian production, pet and zoo species are known to be susceptible to HPAI.

Can migratory birds carry HPAI?

Large numbers of migratory waterbirds return to Australia every year during spring from the Northern Hemisphere via the [East Asian-Australasian Flyway](#). While HPAI viruses have not been detected in migratory birds within Australia, the likelihood of migratory waterbirds returning to Australia carrying the new HPAI strain has increased.

What to look out for

- Small groups or clusters (5 or more) of sick or dead wild birds of any species.
- Individual or <5 sick or dead wild birds:
 - seabirds, waterbirds, shorebirds or birds of prey
 - any other bird species with signs of avian influenza infection as outlined below.
- Sick or dead wild marine mammals, predators or scavenger species with signs of avian influenza infection as outlined below.

Infected live birds may show a wide range of clinical signs, including:

- incoordination, tremors, swimming in circles
- twisted necks or other abnormal posture
- inability to stand or fly
- diarrhoea
- difficulty breathing, coughing or sneezing
- swelling around the head, neck and eyes
- cloudiness or change in colour of the eyes
- sudden death

Infected live mammals may show a wide range of clinical signs, including:

- incoordination and tremors
- seizures
- difficulty breathing
- nasal discharge or drooling
- death, including the potential for mass mortality events

Can people be infected?

- HPAI can infect people, although infections with the current strains are uncommon and have typically only occurred in people who have had close contact with infected birds. Infection can cause a wide range of symptoms from no symptoms at all, to severe illness and death (see [Australian Department of Health and Aged Care](#)).
- Contact with sick or dead birds or other animals should be avoided.
- Contact with land or waterways in which sick or dead birds or other animals have been observed should also be avoided.

- If you develop flu-like symptoms after handling wild birds, contact your health care provider.

What to do

GENERAL ADVICE:

- Become familiar with the clinical signs associated with avian influenza in wild birds.

DURING ROUTINE BIRD HANDLING ACTIVITIES:

- Operate with an increased awareness of the potential risk of disease in wild birds.
- Always maintain good hygiene and biosecurity practices before, during and after working with wildlife (see [Hygiene and biosecurity](#) below).
- Where possible, before undertaking activities, observe for any unusual signs of sickness or deaths in wild birds.

IF DEAD OR SICK WILD BIRDS OR WILD MAMMALS ARE OBSERVED:

- Do not handle or remove sick or dead wild birds or mammals unless instructed to do so by government authorities.
- **RECORD** what you see, the species and estimated numbers sick and/or dead, the location (GPS reading), and take photos or videos.
- **REPORT** any unusual signs of disease or mass mortality events in wild birds or mammals (see above) via the [Emergency Animal Disease Hotline](#) on 1800 675 888. Reporting will alert authorities to the event so they can evaluate the need for diagnostic testing or other investigation. Even if testing is not undertaken, all reports help inform our understanding of the disease and how to manage it.
- Further actions should only be undertaken following advice from government authorities.

Hygiene and biosecurity

Avian influenza viruses can be transmitted between birds or to other animals via direct contact with respiratory secretions and faecal material, as well as indirect exposure to contaminated environments or objects (e.g. clothing, boots, equipment, etc.).

To prevent spread and protect the health of wildlife, domestic birds, and humans, good hygiene and biosecurity practices should be maintained when visiting sites, moving between sites and when handling wildlife. This includes measures prior to arrival, during activities and after departure.

- **Review and implementation of appropriate biosecurity measures are recommended in the field,** following the [National Wildlife Biosecurity Guidelines](#).
- Use appropriate personal protective equipment (PPE), including gloves, a facemask and eye protection, and ensure PPE is removed properly to avoid self-contamination.
- Particular attention should be given to hand washing after handling birds, after contact with potentially contaminated materials and after removal of gloves. Hands and arms should be washed with abundant soap and warm water. Hand sanitizer (gel with 60 to 90% ethanol concentration) can be applied to reinforce disinfection but should not replace proper handwashing.
- Take care to avoid rubbing eyes or touching the mouth, eating, drinking, or smoking until hands are clean.
- Handle birds in a well-lit and well-ventilated area to minimise the possibility of inhaling dried faecal or other material.
- Use clean bird bags for each bird to minimise the risk of transmitting disease between birds.
- Where practicable, use a clean or new pair of gloves for each bird, especially for species which do not congregate or live in close proximity to each other.

- Clothing, shoes and equipment (e.g. used for capture, handling, marking, holding [e.g. transport boxes/bags]) should be thoroughly cleaned after use, followed by disinfection and waste material (e.g. disposable gloves) should be disposed of appropriately (e.g. sealed in plastic bags).
- Bird banders, wildlife rangers, researchers and other wildlife professionals should avoid contact with domestic birds and poultry for 48 hours after handling wild birds, and should avoid visiting multiple field sites in one day.
- Further advice on PPE and disinfection, directed to people currently working in locations impacted by HPAI, can be found in the [WOAH recommendations](#).

Unusual signs of disease or mass deaths in wildlife

Please remember, if you see any other unusual signs of disease or mass deaths in wildlife you can report it to:

- Your local [State/Territory WHA Coordinator](#)
- The 24-hour [Emergency Animal Disease Hotline](#) on 1800 675 888
- The Department of Primary Industries or Agriculture in the State/Territory in which the event has occurred.
- Your local veterinarian.

Resources

Wildlife Health Australia

- Fact sheet: [Avian influenza in wild birds in Australia](#)
- [High Pathogenicity Avian Influenza Information](#)
- Avian Influenza [Technical Issue Update – Global High Pathogenicity Avian Influenza Events](#) (Sept 2023)
- [National Avian Influenza Wild Bird Surveillance](#).

Australian Department of Agriculture, Fisheries and Forestry

- [Information on Avian Influenza or Bird Flu](#) and [Information for bird owners](#)
- [Outbreak.gov.au](#) provides details on how to prepare for and respond to animal pests and diseases.

Australian Biosecurity Manuals

- [National Wildlife Biosecurity Manual](#)
- [National Farm Biosecurity Manuals – Poultry](#) (e.g. chickens)
- [National Zoo Biosecurity Manual](#)
- Australian Veterinary Association (2017) [Guidelines for Veterinary Personal Biosecurity](#)

Human Health

- Australian Department of Health and Aged Care information on [Avian influenza in humans](#)

Sample Collection

- The Australian Registry of Wildlife Health: [Sick and Dead Bird Health Surveillance Sample Collection Protocol](#) Guidelines for the collection of samples for sick and dead wild birds. Appropriate sampling will allow testing to rule out the presence of animal diseases of concern to Australia (such as avian influenza, West Nile Virus and Newcastle Disease).

Australian Veterinary Emergency Plan (AUSVETPLAN)

- The Avian Influenza AUSVETPLAN sets out the nationally agreed response approach to Avian Influenza outbreaks in Australia. This includes agreed policy in Australia with respect to LPAI or HPAI detection in wild birds.

- The AUSVETPLAN Disease Strategy for Avian Influenza can be downloaded from [Animal Health Australia website](#) under “Disease-specific documents”.

World Organisation for Animal Health & IUCN Wildlife Health Specialist Group

- [Avian Influenza and Wildlife: Risk management for people working with wild birds](#)

Global announcements

Communications regarding the high number of global HPAI outbreaks in wild birds since 2021.

- World Organisation for Animal Health & IUCN Wildlife Health Specialist Group - [Avian Influenza and Wildlife: Risk management for people working with wild birds](#)
- Food and Agriculture Organisation of the United Nations (FAO):
 - o [Global AIV with Zoonotic Potential](#) situation update (includes full list of wild bird species)
 - o Managing large-scale high pathogenicity avian influenza (HPAI) outbreaks in wild birds - Videos on FAO’s YouTube channel: [Part 1](#), [Part 2](#)
- Convention on the Conservation of Migratory Species of Wild Animals
 - o [Scientific Task Force on Avian Influenza and Wild Birds](#)
- [WHO Global Influenza Programme Monthly Risk assessment summaries](#) of influenza at the human-animal interface