

Periodic global update on recent exceptional disease events of terrestrial wildlife reported to WOA

Situation report period covered – December 2023

For a century, WOA has managed repositories for animal health disease monitoring data from its Members. By providing a common tool through the World Animal Health Information System (WAHIS), that is homogenous across countries, and based on shared definitions and standards, we ensure that reporting is standardised and centralised. The data collected through WAHIS provides an overview of diseases listed by WOA and emerging diseases in wildlife around the world to better anticipate, prevent, monitor and control outbreaks. The information provided in this report on surveillance implementation in terrestrial wildlife shows major gaps in several parts of the world, which suggests that the number of cases reported to WOA is significantly under-detected and underestimated. This summary however provides a picture of what has been detected and is useful to the international community.

A general introduction of the scope and objective of this report as well as global level of wildlife disease surveillance activities can be found on [Wildlife Health - WOA - World Organisation for Animal Health](#).

Key messages

The information provided in this monthly situation report highlights that:

- During the period, **38 countries and territories** reported **763 outbreaks** and **10,727 cases** in wildlife. Cases of **six diseases** were reported in **80 different wildlife species**, **13.7%** of which are classified as **threatened** by the IUCN classification.
- The largest event of the period was reported by **Finland**, with **8,333 Highly Pathogenic Avian Influenza cases** (**78% of the cases reported** during the period) reported in **farmed fur animals**, namely in American mink, Arctic fox, Raccoon dog, Red fox.
- The reporting of exceptional events affecting wildlife in December mainly concerned **African Swine Fever** and **Highly Pathogenic Avian Influenza** in several regions. This is a common situation also observed in previous situation reports, which shows the widespread existence of surveillance activities and widespread distribution for these two diseases.
- Few deaths and cases in **11 species with critical conservation status** have been reported, highlighting the importance of diseases for the **conservation of biodiversity**. The reported cases represent only **0.2% of the total number of cases notified** during the period, but this number has to be put into perspective with the limited size and geographical range of threatened animal population involved.

- Finally, the widespread detection of ASF and HPAI in wildlife represents not only a potential threat to biodiversity (especially when the diseases are reported in fragmented bird and mammal populations), but also a threat for, livestock, food security, and potentially human health at the global level.

Recent update (December 2023)

In total **763 new outbreaks** with **10,727 cases** of [exceptional disease events](#)¹ (Figure 1) were reported in terrestrial wildlife during the period, through WOA's early warning system. The majority of cases (8,333 cases belonging to 23 different outbreaks) were linked to a single event in Finland in farmed fur animals. Other cases in wildlife have not been reported during the period through email using the provision of [article 1.1.5](#)² of the *Terrestrial Animal Health Code*. Finally, other cases in wildlife species can be reported as affected in areas where diseases are stable, and they are not covered by this report.

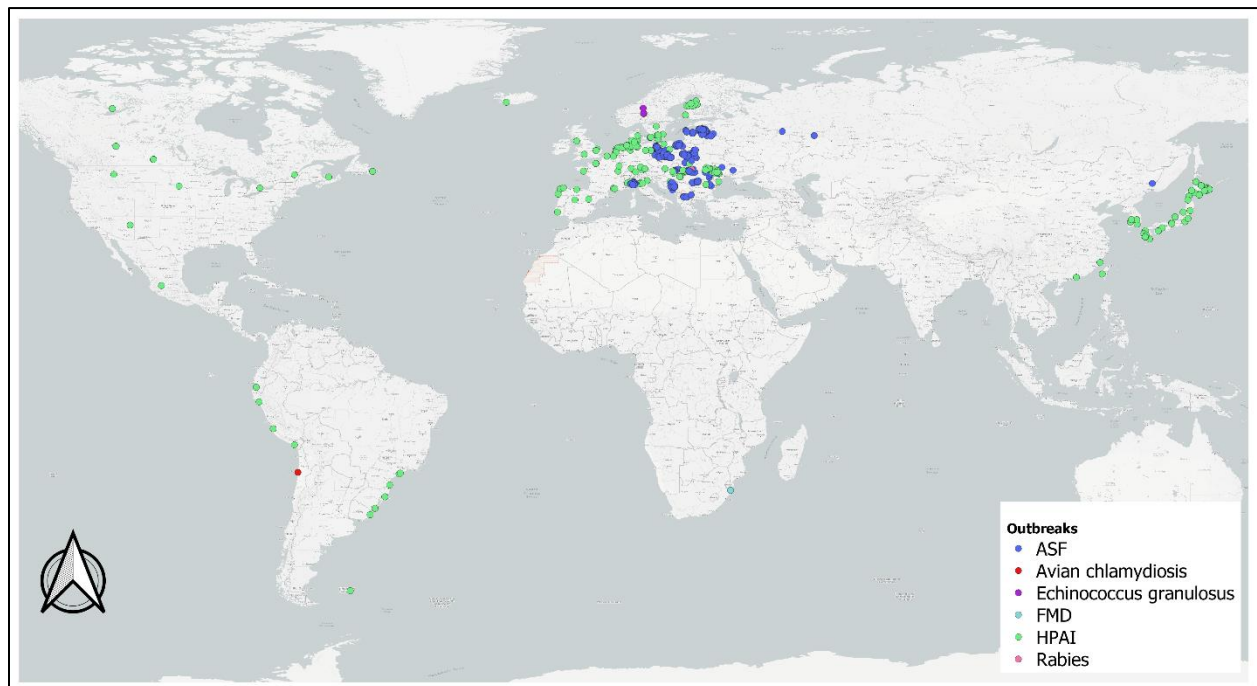


Figure 1. New outbreaks of exceptional disease events reported during the period in terrestrial wildlife. ASF= infection with African swine fever, FMD = Infection with foot and mouth disease, HPAI = Infection of birds other than poultry, including wild birds, with influenza A viruses of high pathogenicity.

Outbreaks were reported in countries in Africa, the Americas, Asia, and Europe (Figure 2), specifically, **avian chlamydiosis**, infection with African swine fever (ASF), infection of birds other than poultry, including wild birds, with influenza A viruses of high pathogenicity (HPAI), infection with *Echinococcus granulosus*, Infection with foot and mouth disease (FMD) virus, and infection with rabies virus (rabies). The large majority of outbreaks (88%) were reported in the Europe Region, possibly related to more extensive wildlife

¹ Based on the criteria listed in Article 1.1.3.1 of the WOA's Terrestrial Animal Health Code

² Although Member Countries are only required to notify listed diseases and emerging diseases, they are encouraged to provide WOA with other important animal health information.

surveillance and/or reporting in the Region, in addition to specific epidemiological context. Most of the outbreaks reported in Asia and the Americas, were linked to the spread of HPAI in the Region. The diseases with the highest number of outbreaks reported were, as in previous reports, ASF and HPAI, followed by infection with *Echinococcus granulosus* (4 outbreaks reported in Norway), and the other diseases (avian chlamydiosis, FMD, rabies) with one outbreak reported for each. Cases were reported in 80 different wild species belonging to 15 orders (Table 1, Table 2).

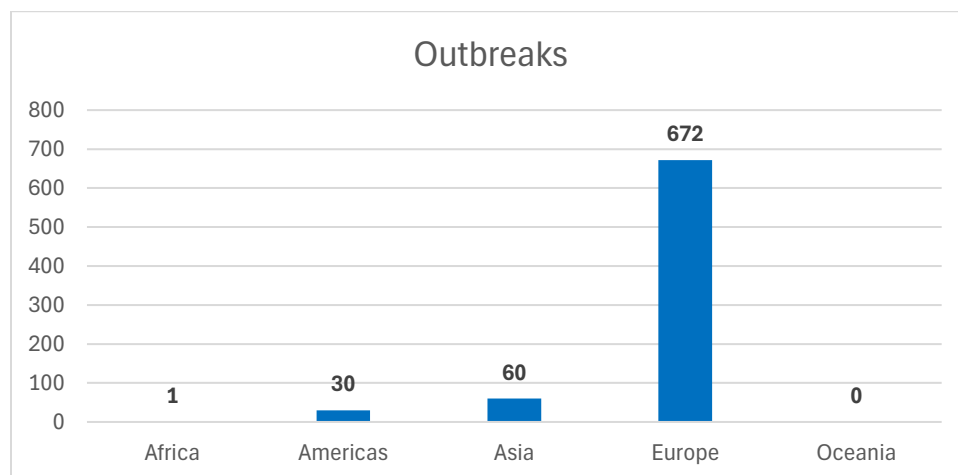


Figure 2: Number of outbreaks reported during the period and split by world region

Table 1 – Number of outbreaks reported by disease and information on zoonotic character of the disease³.

Disease	Outbreaks reported	Zoonotic disease
ASF	529	No
Avian chlamydiosis	1	Common
Echinococcus granulosus	4	Common
FMD	1	No
HPAI	224	Occasional
Rabies	1	Common

³ This assessment is based on the definition of zoonosis documented in the Tripartite Guide to Addressing Zoonotic Diseases in Countries: “infectious diseases that can be spread between animals and humans; can be spread by food, water, fomites, or vectors.”

Table 2 - Number of cases reported by order, and animal species; conservation status of each species, based on IUCN red list of threatened species (database accessed on 06 July 2023). This table provides the list of species with threatened status. The full list of species reported is available on demand.

Disease	Cases	Order	Species (common name)	Reporting countries/territories	Endangered status*
Avian chlamydiosis	3	Psittaciformes	Blue-fronted Parrot	Chile	NT
HPAI	1	Anseriformes	Falcat Duck	Hong Kong	NT
HPAI	4	Gruiformes	Hooded crane	Japan	VU
HPAI	3	Gruiformes	White-naped crane	Japan	VU
HPAI	1	Charadriiformes	Eurasian Oystercatcher	France	NT
HPAI	2	Charadriiformes	Eurasian Curlew	Belgium, Italy	NT
HPAI	1	Procellariiformes	Waved albatross	Peru	CR
HPAI	1	Phaethontiformes	Black-faced spoonbill	Chinese Taipei	EN
HPAI	1	Accipitriformes	Mountain Hawk-eagle	Japan	NT
FMD	1	Artiodactyla	African buffalo (Cape buffalo)	South Africa	NT
HPAI	1	Carnivora	Polar Bear	United States of America	VU

*NT=Near threatened; VU=vulnerable; EN= endangered; CR= critically endangered

Global and regional impact

Reporting and impact on biodiversity

Out of the 80 species for which cases were reported, 11 of them (13.7%) have a threatened status according to the IUCN classification. In term of quantitative impact, they represent however only 0.2% of cases reported (but this data need to be considered at the light of the fact that endangered species population are numerically less represented and with limited geographic range. In particular, one is classified as “Critically endangered” (CR), one as “Endangered” (EN), three as “Vulnerable” (VU), and six as “Near threatened” (NT), (figure 3, table 2). Out of the seven reported diseases, HPAI is the one infecting the majority of the threatened species (9/11), while avian chlamydiosis and FMD impacted one each only. The detection of HPAI on species with vulnerable conservation status is a common and constant finding in our analysis, highlighting the potential impact of this disease on biodiversity conservation. It is worthy to highlight that in this case one critically endangered species and one endangered species are impacted by

the disease. The recently published WOAHA guidelines “[Considerations for emergency vaccination of wild birds against high pathogenicity avian influenza in specific situations](#)” addresses this risk by providing guidance on considerations for emergency vaccination of wild birds against high pathogenicity avian influenza (HPAI) in immediate response to an outbreak or increased risk of introduction of HPAI

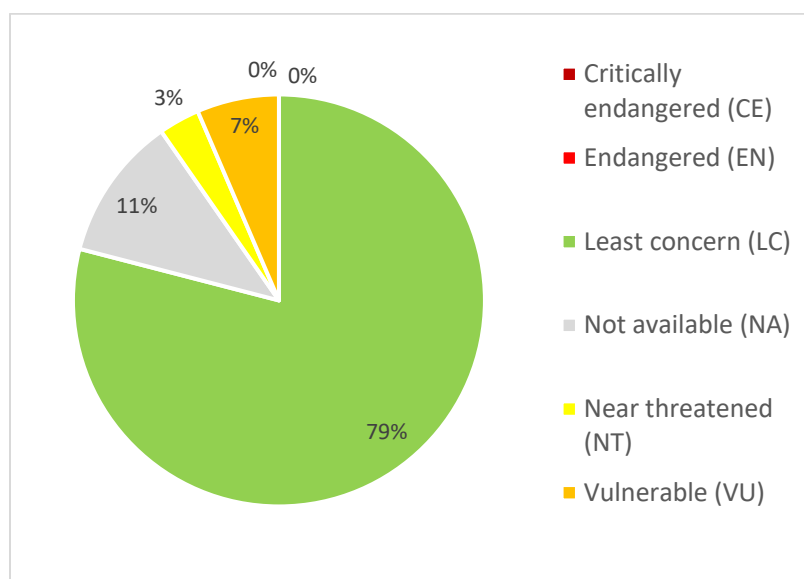


Figure 3: percentage of reported species falling under the different IUCN categories

In particular, HPAI was detected in one **wild** Black-faced spoonbill in Chinese Taipei (the infected animal died from the disease), and one **wild** Waved albatross in Peru (the infected animal died from the disease). To provide an idea of the potential impact of HPAI occurrence in this species it is relevant to highlight that:

- Black-faced spoonbill⁴ has an estimated population of 2,250 mature individuals. Breeding population is present in Korea (Democratic People's Republic of); Korea (Republic of) and Russia, while non-breeding population is reported in Cambodia, Chinese Taipei, Hong Kong, Japan, Philippines, Thailand, and Vietnam.
- Waved albatross⁵ has a decreasing population with only one know subpopulation. On Española, the breeding population was estimated at 34,694 adults in 2001. On La Plata Island, there are probably fewer than 10-20 pairs.

⁴ <https://www.iucnredlist.org/species/22697568/119347801>

⁵ <https://www.iucnredlist.org/species/22692167/213488064>

HPAI keeps also being reported in wild mammals, and the [WOAH statement on HPAI in wild mammals](#) highlighted the need for better surveillance, reporting, control and genetic sequence sharing to better anticipate the consequences of the ongoing outbreaks.

Another "vulnerable" species reported in December, that is worthy to highlight is Polar Bear affected as well by HPAI. The Red List describes the Polar bear populations as Vulnerable, as the global population continue declining.

Finally, ASF has not been reported in any endangered wildlife species, but it could potentially threaten endemic wild pig species, leading to the extinction of local populations^{6,7} and creating tensions for top predators that rely on wild pigs as a major food source.

Reporting and impact on Public health

HPAI has a recognised zoonotic potential. In the current situation, it is worrying to observe that the number of cases in mammals has increased and that the virus has adapted to infect mammals more efficiently (in this report HPAI was reported in nine mammal species, belonging to Carnivora orders [American Mink, Arctic Fox, Domestic cat – feral, Polar Bear, Raccoon dog, Red Fox, South American fur seal, South-American sea lion, Striped Skunk]). This situation represents a risk for increased human infections, although currently, the infections are still sporadic. The increased number of HPAI cases reported in mammals is a trend observed since 2021 (for additional information, see the [HPAI situation reports](#)). This trend has led to a [statement of WOA](#)H on avian influenza in mammals to increase awareness, monitoring and analysis of wild mammals, acknowledging the risk that H5N1 avian influenza may become better and better adapted to mammals. Of public health of concern, is also the reporting of few outbreaks of three common zoonoses: Avian chlamydiosis, infection with *Echinococcus granulosus*, and Rabies. Avian chlamydiosis was reported in Chile as first occurrence in a zone in three Blue-fronted Parrot. The disease was transmitted to a person that recovered after treatment with antibiotics. Infection with *Echinococcus granulosus* was reported in Norway in four moose (*Echinococcus granulosus* sensu lato genotype E: *Echinococcus canadensis* G10). The interest of this report sits in the fact that it represents the first occurrence of the disease in the country. Finally, rabies was reported in four foxes in Hungary. After a period of absence during the period 2017-early 2022, the disease reappeared in the country and until now 22 outbreaks have been already recorded.

⁶ <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/cont.12784>

⁷ <https://www.iucn.org/fr/node/18504>

Reporting and impact on domestic animal's health and welfare

During the reporting period, most of the reported outbreaks of non-zoonotic diseases were related to the occurrence of ASF in wild boar in Europe. ASF is one of the major animal diseases currently threatening global livestock and food security (for more information see the [African swine fever situation reports](#)). The major impact of ASF is linked to the establishment of a wildlife cycle that makes disease eradication challenging. Reduction of wild boar density may have indirect effects also on increased predation of livestock⁸. FMD (SAT2 serotype) was also reported in this period in an African buffalo in South Africa. African buffalo act as maintenance hosts for FMD in southern Africa, and a single buffalo can become infected with all three of the endemic serotypes of FMD virus (SAT-1, SAT-2, and SAT-3) and pose a threat of infection to other susceptible cloven-hoofed animals. Regarding the occurrence of HPAI, it is relevant to highlight that the dynamics of the disease at the poultry/wildlife interface can also impact food security (for additional information please see also the [HPAI situation reports](#)).

More information and resources

- [Statement on avian influenza and mammals](#)
- [Avian Influenza and Wildlife: Risk Management for People Working with Wild Birds](#)
- [Continued expansion of HPAI H5 in wildlife in South America and incursion into the Antarctic region \(OFFLU statement\)](#)
- [Considerations for emergency vaccination of wild birds against high pathogenicity avian influenza in specific situations](#)
- [African swine fever in wild boar ecology and biosecurity](#)
- [African swine fever awareness and technical resources](#)
- [In-country wildlife disease surveillance report 2021](#)
- [In-country wildlife data management survey dashboard 2023](#)

For any press inquiry on diseases in wildlife, you can email us at media@woah.org

Complete list of species for which cases were reported in December 2023 is available on demand at epi@woah.org.

⁸ <https://www.sciencedirect.com/science/article/pii/S1470160X21010840>