

COVID-19, caused by infection with SARS-CoV-2, is a human disease which most likely emerged from an animal source and through widespread human-to-human transmission became a pandemic. As of 30 September 2022, around **620 million** confirmed human cases have been reported worldwide, with more than **6.5 million** human deaths¹. The nature of this new zoonotic virus, together with its widespread distribution and the susceptibility of some animal species to infection, manifests in animal infections arising from close contact between people and animals. Conversely, there is also evidence that, for some animal species, close contact with infected animals can represent a potential source of infection in humans². This report is a monthly update of the global situation of the report of SARS-CoV-2 in animals, with a special focus on the new reports submitted to WOAHA in the last month.

Global situation since the beginning of the pandemic

The worldwide geographical distribution of SARS-CoV-2 outbreaks in animals reported to WOAHA is shown in Figure 1. The first case of SARS-CoV-2 in animals was officially reported to WOAHA by Hong-Kong (SARC) on 29 February 2021 in a dog.

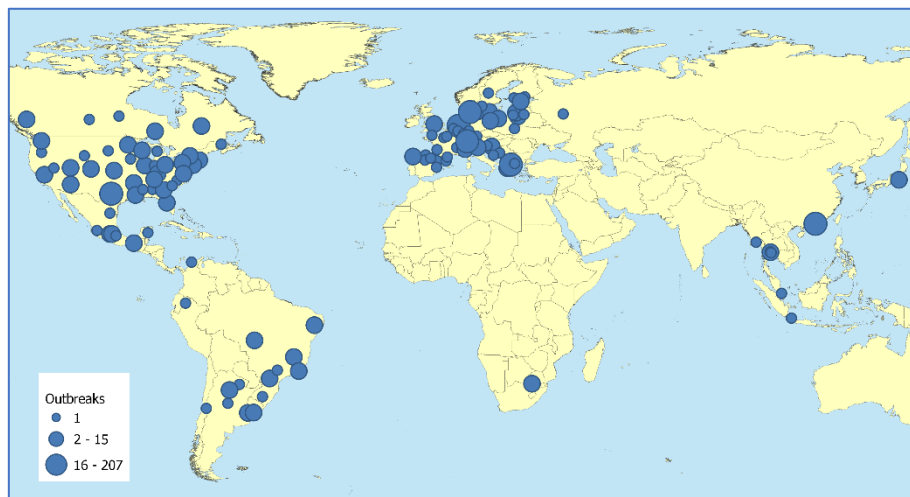


Figure 1. Worldwide distribution of SARS-CoV-2 outbreaks reported to WOAHA (as of 30 September 2022).
Note that dot size on the map is proportional to the number of outbreaks reported.

Table 1 shows the global distribution of animal infections with SARS-CoV-2. Thirty-six countries in the Americas, Africa, Asia, and Europe have reported the occurrence of the disease, in twenty-six different animal species (cats, dogs, mink, otter, pet ferrets, lions, tigers, pumas, snow leopards, gorillas, white-tailed deer, fishing cat, Binturong, South American coati, spotted hyena, Eurasian lynx, Canada lynx, hippopotamus, hamster, mule deer, giant anteater, West Indian manatee, black-tailed marmoset, common squirrel monkey, mandrill, red fox).

¹ <https://coronavirus.jhu.edu/map.html>

² https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2020.25.23.2001005#html_fulltext

Table 1. Number of outbreaks (n=694) reported worldwide, by species and region (as of 30 September 2022).

Species	Region			
	Africa	Americas	Asia	Europe
Binturong		X		
Black-tailed marmoset		X		
Canada lynx		X		
Cat		X	X	X
Common squirrel monkey		X		
Dog		X	X	X
Eurasian lynx				X
Fishing cat		X		
Giant anteater		X		
Gorilla		X		X
Hamster			X	
Hippopotamus				X
Lion	X	X	X	X
Mandrill		X		
Mink		X		X
Mule deer		X		
Otter		X		
Pet ferret		X		X
Puma	X	X		
Red fox				X
Snow leopard		X		
South American coati		X		
Spotted hyena		X		
Tiger		X	X	X
West Indian manatee		X		
White-tailed deer		X		

Update during last month (01/09/2022 - 30/09/2022)

During the last month **3 outbreaks** have been reported or updated by **2 countries (Italy and Switzerland)** in **2 animal species** (American mink red fox). The recent distribution of outbreaks is reported in Figure 2.



Figure 2. Worldwide recent distribution of SARS-CoV-2 outbreaks reported to WOA (01/09/2022 - 30/09/2022).

EPIDEMIOLOGICAL COMMENTS

Summary of the global situation and recommendations

While the main driver of community and international spread in the current pandemic is human to human transmission, animal cases of infection with SARS-CoV-2, though still only occasional occurrences, continue to rise. Currently, **694 outbreaks** in animals have been reported globally, affecting **26 species** in **36 countries**. Some countries have experienced a high prevalence of outbreaks in mink farms, and variant strains have now been identified in mustelids. As infection with SARS-CoV-2 is an emerging disease, WOA strongly encourages Members to report through WAHIS the occurrence of any cases in animals that comply with the case definition provided in WOA guidelines³.

Relevant changes in disease situation during the period:

- SARS-CoV-2 was reported through **1** Follow-up report by **Italy** in American minks
- SARS-CoV-2 was reported through **1** Follow-up report by **Switzerland** in red fox

Relevant epidemiological comments from countries:

- **Switzerland (red fox):** *This case concerning a fox in captivity (Vulpes vulpes) was detected in the frame of a research project on routine samples from animals which are tested on SARS-CoV-2. The project is in the responsibility of the Clinical Laboratory of the Vetsuisse Faculty (VSF) of the University of Zurich (UZH). VS_COVID_1_Fox: This case concerning a wild fox (Vulpes vulpes) in a was detected in the framework of a research project in Swiss wildlife. The project is under the responsibility of the Institute for Fish and Wildlife Health (FIWI), Vetsuisse Faculty, University of Bern, and the Clinical Laboratory, Vetsuisse Faculty, University of Zurich (UZH), Switzerland.*

Other relevant information during the period (WOAH documents, relevant news, upcoming webinar or conferences)

- WOA Ad hoc Group on COVID-19 at the Animal-Human Interface - https://former.woah.org/fileadmin/Home/MM/14th_call_AHG_COVID-19.pdf
- [Statement from the Advisory Group on SARS-CoV-2 Evolution in Animals concerning the origins of Omicron variant - WOA - World Organisation for Animal Health](#)
- [8th-call-advisory-group-sars-cov2-evolution-in-animals.pdf \(woah.org\)](#)
- [16th call WOA ad hoc Group on COVID-19 at the animal-human interface](#)

³ https://www.woah.org/fileadmin/Home/MM/A_Sampling_Testing_and_Reporting_of_SARS-CoV-2_in_animals_3_July_2020.pdf