

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 10 March 2023¹, around **676 million** confirmed human cases have been reported worldwide, with more than **6.9 million** human deaths². 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 humans³. This report is a periodic 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 3 months.

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.

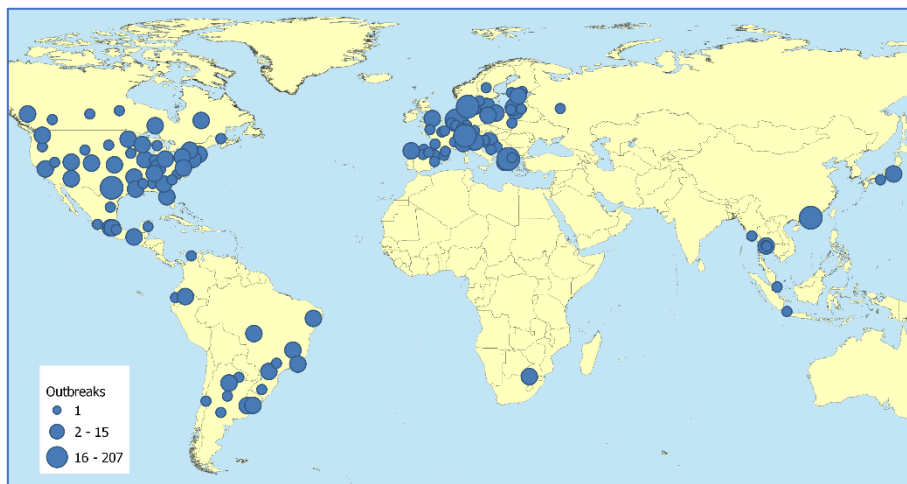


Figure 1. Worldwide distribution of SARS-CoV-2 outbreaks reported to WOAHA (as of 30 June 2023).
Note that dot size on the map is proportional to the number of outbreaks reported.

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-nine 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, big hairy armadillo, black-headed Spider Monkey, common woolly monkey).

¹ After three years of around-the-clock tracking of COVID-19 data from around the world, Johns Hopkins has discontinued the Coronavirus Resource Center's operations. The site's two raw data repositories will remain accessible for information collected from 1/22/20 to 3/10/23 on cases, deaths, vaccines, testing and demographics.

² <https://coronavirus.jhu.edu/map.html>

³ https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2020.25.23.2001005#html_fulltext

Table 1. Number of outbreaks (n=775) reported worldwide, by species and region (as of 30 June 2023).

Species	Region			
	Africa	Americas	Asia	Europe
Binturong		X		
Big hairy armadillo		X		
Black-headed Spider Monkey		X		
Black-tailed marmoset		X		
Canada lynx		X		
Cat		X	X	X
Common squirrel monkey		X		
Common woolly 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 3 months (01/04/2023 – 30/06/2023)

During the last 3 months, **4 outbreak** has been reported or updated by **3 countries (Argentina, Ecuador, Italy)** in **4 animal species** (American minks, big hairy armadillo, black-headed Spider Monkey, common woolly monkey). The recent distribution of outbreaks is reported in Figure 2.



Figure 2. Worldwide recent distribution of SARS-CoV-2 outbreaks reported to WOA (01/04/2023 - 30/06/2023).

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, **775 outbreaks** in animals have been reported globally, affecting **29 species** in **36 countries**. It is important to highlight that detection of the disease in animals is very dependent on the level of surveillance implemented at country level, and consequently these numbers are likely underestimated. 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 guidelines⁴.

Relevant changes in disease situation during the period:

- SARS-CoV-2 was reported through **1** Follow-up report by **Argentina** in big hairy armadillo
- SARS-CoV-2 was reported through **1** Immediate notification report by **Ecuador** in black-headed Spider Monkey, and common woolly monkey
- SARS-CoV-2 was reported through **1** Follow-up report by **Italy** in American minks

Relevant epidemiological comments from countries:

- **Ecuador (black-headed Spider Monkey, and common woolly monkey):** *Captive monkeys with clinical signs and mortality.*

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

- WOA COVID-19 portal resources - <https://www.woah.org/en/what-we-offer/emergency-preparedness/covid-19/#ui-id-5>
- WOA COVID-19 portal events in animals - <https://www.woah.org/en/what-we-offer/emergency-preparedness/covid-19/#ui-id-3>
- WOA COVID-19 portal expert groups and guidances - <https://www.woah.org/en/what-we-offer/emergency-preparedness/covid-19/#ui-id-4>

⁴ https://www.woah.org/fileadmin/Home/MM/A_Sampling_Testing_and_Reporting_of_SARS-CoV-2_in_animals_3_July_2020.pdf