

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 31 March 2022, around **500 million** confirmed human cases have been reported worldwide, with more than **6 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 the OIE 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 the OIE is shown in Figure 1. The first case of SARS-CoV-2 in animals was officially reported to the OIE by Hong-Kong (SARC) on 29 February 2021 in a dog.

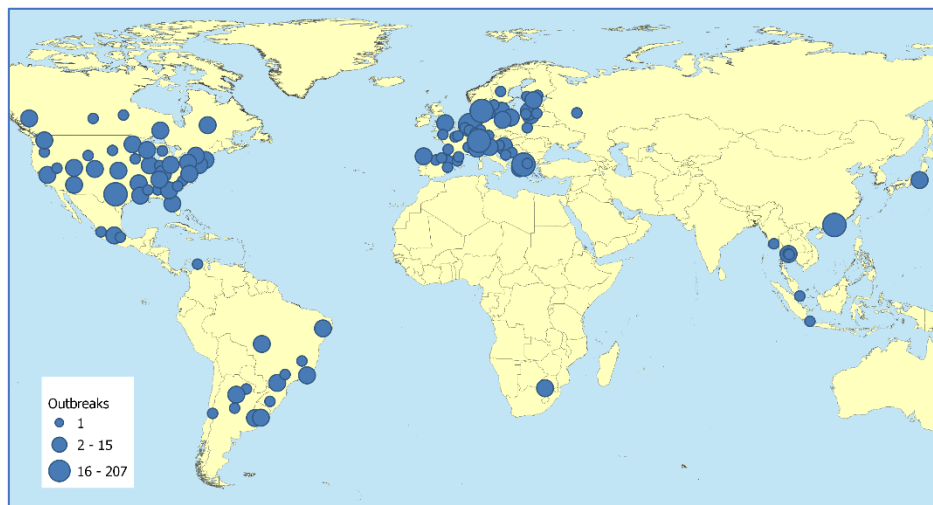


Figure 1. Worldwide distribution of SARS-CoV-2 outbreaks in fifteen animal species reported to the OIE (as of 31 March 2022). Note that dot size on the map is proportional to the number of outbreaks reported.

Table 1 shows the global distribution of animal infections with SARS-CoV-2. Thirty-five countries in the Americas, Africa, Asia, and Europe have reported the occurrence of the disease, in twenty 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).

Table 1. Number of outbreaks (n=669) reported worldwide, by species and region (as of 31 March 2022).

Species																					
	Cat	Dog	Mink	Otter	Pet ferret	Lion	Tiger	Puma	Snow leopard	Gorilla	White-tailed deer	Fishing cat	Binturong	Coatimundi	Spotted hyena	Eurasian lynx	Canada lynx	Hippo	Hamster	Mule deer	
Region																					
Africa						X		X													
Americas	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X				X
Asia	X	X				X	X													X	
Europe	X	X	X		X	X	X									X		X			

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

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

Update during last month (01/03/2022 - 31/03/2022)

During the last month **10 outbreaks** have been reported or updated by **5 countries (Canada, Lithuania, Spain, Switzerland, and United States of Americas)** in **5 animal species** (American mink, cat, dog, mule deer, white-tailed deer). The recent distribution of outbreaks is reported in Figure 2.

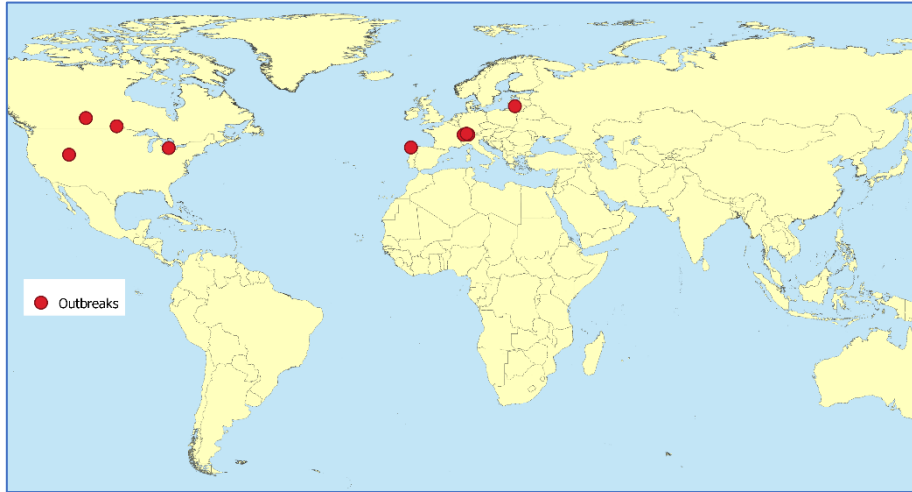


Figure 2. Worldwide recent distribution of SARS-CoV-2 outbreaks reported to the OIE (01/03/2022 - 31/03/2022).

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, **669 outbreaks** in animals have been reported globally, affecting **20 species** in **35 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, the OIE strongly encourages Members to report through WAHIS the occurrence of any cases in animals that comply with the case definition provided in the OIE guidelines³.

Relevant changes in disease situation during the period:

- SARS-CoV-2 was reported through **1** Follow-up report by **Canada** in **white-tailed deer**
- SARS-CoV-2 was reported through **1** Follow-up report by **Lithuania** in **American minks**
- SARS-CoV-2 was reported through **1** Follow-up report by **Spain** in **American minks**
- SARS-CoV-2 was reported through **3** Follow-up reports by **Switzerland** in **cats** and **dogs**
- SARS-CoV-2 was reported through **1** Follow-up report by **United States of America** in **mule deer**

Relevant epidemiological comments from countries:

- **Canada (white-tailed deer affected):** *“The SARS-CoV-2 positive white-tailed deer from Saskatchewan, Manitoba and Ontario are additional results of an ongoing cross-jurisdictional study undertaken by several federal, provincial, territorial and academic partners to monitor wild cervids across Canada for the presence of SARS-CoV-2. For updated information about SARS-CoV-2 confirmed cases in animals in Canada, please consult: <https://www.cahss.ca/cahss-tools/sars-cov-2-dashboard> Note that a new lineage of SARS-CoV-2 has been identified in Ontario white-tailed deer, please refer to <https://www.biorxiv.org/content/10.1101/2022.02.22.481551v1>”.*
- **United States of America (mule deer affected):** *“--March 23, 2022 Utah (UT) A live-captured mule deer was confirmed positive for SARS-CoV-2 at the National Veterinary Services Laboratories upon molecular testing (PCR and sequencing). **This is the first mule deer confirmed with SARS-CoV-2.** This sample was collected under a multistate research protocol using opportunistically collected specimens to screen miscellaneous wildlife species for SARS-CoV-2. There is a single SARS-CoV-2*

³ https://www.oie.int/fileadmin/Home/MM/A_Sampling_Testing_and_Reporting_of_SARS-CoV-2_in_animals_3_July_2020.pdf

event occurrence in the United States of America, however, for WAHIS technical reasons, any new outbreaks in the country will be reported in this new event and not in the one first reported in April 2020. For more details about SARS-CoV-2 testing of animals in the United States, see: <https://www.aphis.usda.gov/aphis/dashboards/tableau/sars-dashboard>.”.

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

- OIE Ad hoc Group on COVID-19 at the Animal-Human Interface - https://old.oie.int/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 - OIE - World Organisation for Animal Health](#)
- [8th-call-advisory-group-sars-cov2-evolution-in-animals.pdf \(oie.int\)](#)
- [Highly divergent white-tailed deer SARS-CoV-2 with potential deer-to-human transmission | bioRxiv](#)
- [SARS-CoV-2 in pets of infected family groups in a severely affected region in Spain - International Journal of Infectious Diseases \(ijidonline.com\)](#)
- [Serosurvey of SARS-CoV-2 in dogs and cats from Portugal - International Journal of Infectious Diseases \(ijidonline.com\)](#)
- [Prevalence of anti-severe acute respiratory syndrome coronavirus 2 antibodies in cats in Germany and other European countries in the early phase of the coronavirus disease-19 pandemic](#)
- [White-tailed deer can transmit covid for five | EurekAlert!](#)