

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 April 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.

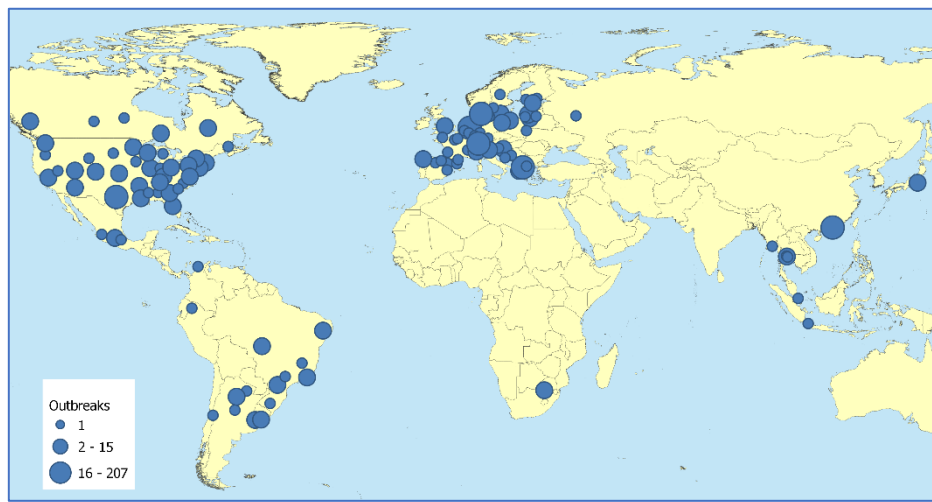


Figure 1. Worldwide distribution of SARS-CoV-2 outbreaks in fifteen animal species reported to the OIE (as of 30 April 2022). Note that dot size on the map is proportional to the number of outbreaks reported.

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-three 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).

Table 1. Number of outbreaks (n=675) reported worldwide, by species and region (as of 30 April 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	Giant anteater	West Indian manatee	Black-tailed marmoset	
Africa						X		X																
Americas	X	X	X	X	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 (01/04/2022 - 30/04/2022)

During the last month **6 outbreaks** have been reported or updated by **3 countries (Brazil, Canada, Ecuador)** in **5 animal species** (black-tailed marmoset, dog, giant anteater, West Indian manatee, white-tailed deer). The recent distribution of outbreaks is reported in Figure 2.

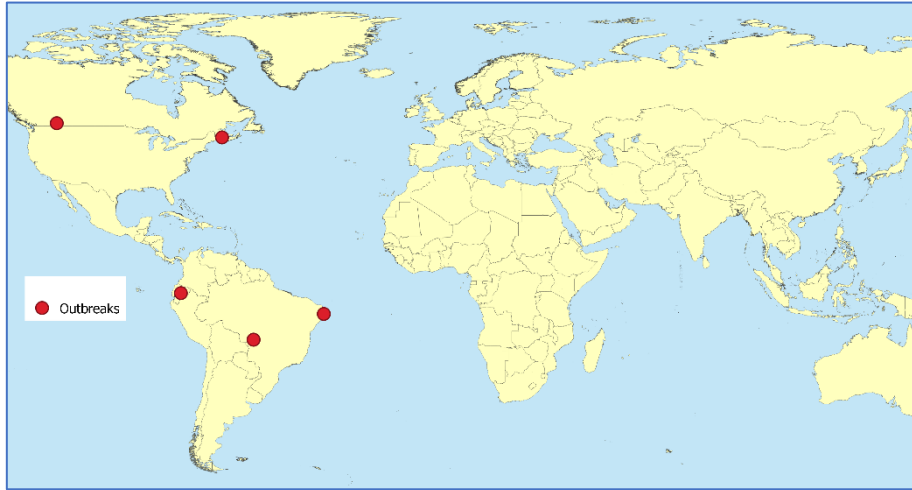


Figure 2. Worldwide recent distribution of SARS-CoV-2 outbreaks reported to the OIE (01/04/2022 - 30/04/2022).

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, **675 outbreaks** in animals have been reported globally, affecting **23 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, 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 **Brazil** in giant anteater, West Indian manatee, black-tailed marmoset
- SARS-CoV-2 was reported through **1** Follow-up report by **Canada** in white-tailed deer
- SARS-CoV-2 was reported through **1** Immediate notification by **Ecuador** in a **dog**

Relevant epidemiological comments from countries:

- **Brazil (giant anteater, West Indian manatee, black-tailed marmoset affected):** *“There is not an official SARCOV -2 surveillance programme for animal species in Brazil, but in the context of the COVID-19 pandemic there are some research centers running projects on the study of susceptibility of domestic and wild animal species to SARS-CoV-2 infection. The researchers have been testing animals to which they have access in their routine work to check susceptibility and possible effects of the disease in animal populations. One of the ongoing projects is carried out by the National Center for Research and Conservation of Aquatic Mammals, an institution under the authority of the Ministry of the Environment that rescues and rehabilitates wild aquatic mammals for conservation purposes. Routine disease testing is carried out in captivity and free-ranging animals for health assessment and clinical follow-ups. Considering the emergence of the new coronavirus and the COVID-19 pandemic situation in 2020, the center decided to investigate the presence of SARS-CoV-2 in Antillean manatees (*Trichechus Manatus manatus*) to check their susceptibility and review biosafety and health management procedures, as this is considered an endangered species. After SARS-CoV-2 detection in the manatees of the Itamaracá Island/PE unit, staff at the center were tested and six resulted positive for SARS-CoV-2. The source of infection for the*

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

manatees remains unclear. In another research project, the Veterinary Hospital at the Federal University of Mato Grosso provides veterinary assistance for rescued injured and abandoned wild animals. They take this opportunity to monitor the presence of several diseases and recently introduced the detection of SARS-CoV-2 in their scope. In January 2022, a black-tailed marmoset (*Mico melanurus*) and a giant anteater (*Myrmecophaga tridactyla*) found injured were taken to the hospital and RT-PCR tests performed identified the presence of SARSCOV-2 nucleic acid. Considering the information available, it is not possible to establish the start date and infection source.”

- **Canada (white-tailed deer affected):** “The SARS-CoV-2 positive white-tailed deer from British Columbia and New Brunswick 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. Sequencing results indicate lineage is B.1.617.2 (Delta) for the positive deer from British Columbia. No more follow up reports will be submitted for SARS-CoV-2 infections in deer. 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>”.
- **Ecuador (dog affected):** “This event follows a scientific research carried out by a national academic institution in which the National Institute for Public Health Research (INSPI) participated through the analysis of some laboratory results. This research was carried out in a specific population belonging to an indigenous community in the Ecuadorian Amazonia and covers a period in which a high incidence of Covid-19 in humans was observed.”

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 \(oie.int\)](#)
- [Alaskan wildlife being tested for SARS-CoV-2 | Outdoors | newsminer.com](#)