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 May 2021**, around **170 million** confirmed human cases have been reported worldwide, with more than **3.5 million** human deaths[1]. 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 humans[2].

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

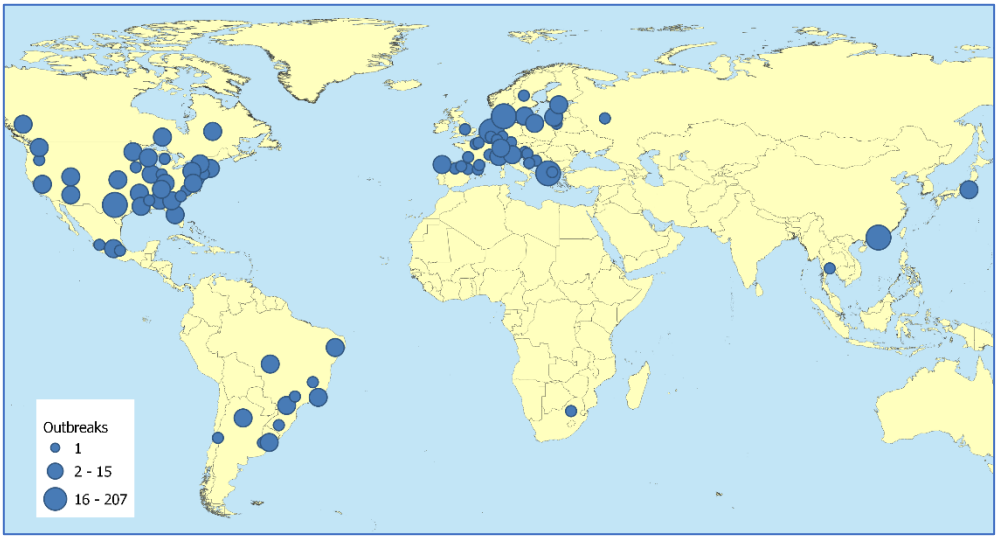

Figure 1. Worldwide distribution of SARS-CoV-2 outbreaks in ten animal species reported to the OIE (as of 31 May 2021). Note that dot size on the map is proportional to the number of outbreaks reported.

Table 1 shows the global distribution of animal infections with SARS-CoV-2. Thirty countries in the Americas, Africa, Asia, and Europe had reported the occurrence of the disease, in ten different animal species (cats, dogs, mink, otter, pet ferrets, lions, tigers, pumas, snow leopards and gorillas).

Table 1. Number of outbreaks (n=552) reported worldwide, by species and region (as of 31 May 2021).

Region \ Species	Cats	Dogs	Mink	Otter	Pet ferrets	Lions	Tigers	Pumas	Snow leopards	Gorillas
Africa								1		
Americas	67	66	20	1		2	7	2	1	1
Asia	10	15								
Europe	24	4	326		1	2*	1*			
TOTAL	**101**	**85**	**346**	**1**	**1**	**4**	**8**	**3**	**1**	**1**

*One lion and one tiger in Sweden are from the same location and are therefore only represented as 1 outbreak in this table.

[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 (01/05/2021 - 31/05/2021)

During the last month **13 outbreaks** have been reported by **5 countries** in **4 animal species** (cat, dog, mink, tiger). The recent distribution of outbreaks is reported in Figure 2.

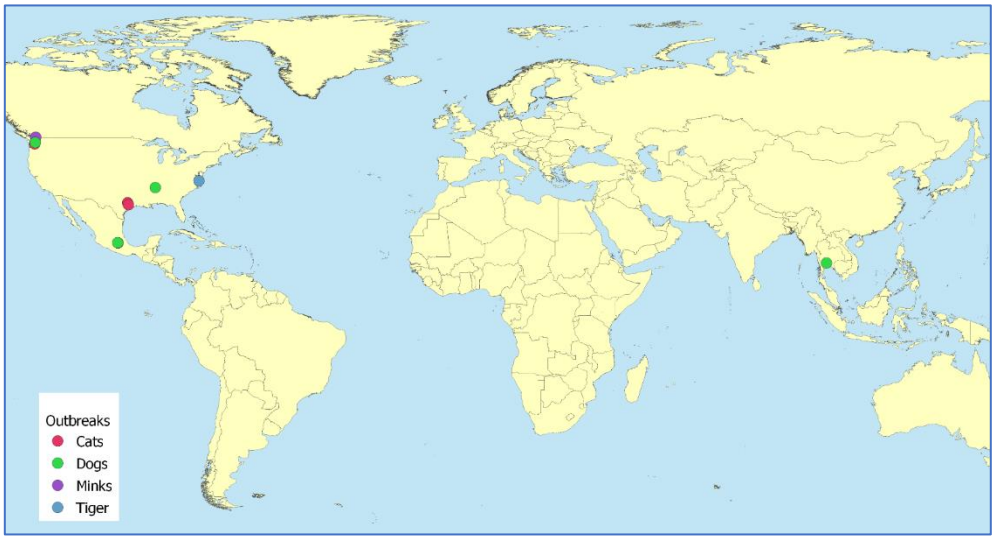

Figure 2. Worldwide recent distribution of SARS-CoV-2 outbreaks reported to the OIE (01/05/2021 - 31/05/2021).

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, **552 outbreaks** in animals have been reported globally, affecting **10 species** in **30 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 guidelines[3].

Relevant changes in disease situation during the period:

- SARS-CoV-2 was reported for the first time in **Thailand**
- SARS-CoV-2 was reported for the first time in **Uruguay**

Relevant epidemiological comments from countries:

- **Thailand**: "*The owner of the dog tested positive for COVID-19 and the dog had to be operated on 29 April, so samples for testing SAR-CoV-2 were collected on that day; the result was suspected from oral samples and undetected from nasal and anal samples. After the operation, the dog was transferred to another animal hospital for complementary treatment and samples were recollected on 3 and 4 May. Result of these samples were positive. On 6 May, the dog was transferred to the animal hospital of Chulalongkorn University in Nakhon Pathom for isolating.*"

- **Uruguay**: "*On may 14th of this year, a research team from the University of the Republic notified the official services of the detection of SARS-COV-2 in pet samples. The work was carried out in the framework of a CSIC project "Specialised knowledge to face the emergency posed by COVID-19 and its impacts", led by Dr. Alejandro Benech (Faculty of Veterinary Medicine) and Dr. Yanina Panzera (Faculty of Science) and with the participation of virologists from the Faculty of Science (Dr. Santiago Mirazo). Both samples from both animals were diagnosed by qPCR during January and February 2021.*"

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

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
- Serological study in pets in Brazil - 31% of dogs and 40% of cats tested positive to COVID-19 after owners' diagnoses | EurekAlert! Science News
- New coronavirus found in bats in UK - Warnings after new coronavirus found in rare bats in UK - Leicestershire Live (leicestermercury.co.uk)
- Novel bat coronaviruses and origins of SARS-CoV-2 and related viruses - Identification of novel bat coronaviruses sheds light on the evolutionary origins of SARS-CoV-2 and related viruses (cell.com)