




Coronavirus Disease 2019 (COVID-19)

Interim Guidance for SARS-CoV-2 Testing in North American Wildlife

Key Concepts:



- This guidance is intended for health and wildlife professionals who work with free-living wildlife during the COVID-19 pandemic.
- We are still learning about this virus, but we know it is primarily spreading from person to person, and it appears that it can spread from people to animals in some situations.
- In rare circumstances, testing wildlife for SARS-CoV-2, the virus that causes COVID-19, may be considered. This guidance is intended to facilitate decision-making for SARS-CoV-2 testing in these circumstances.
- Testing wildlife for SARS-CoV-2 may be appropriate for morbidity and mortality event-based surveillance, ensuring the health of threatened or endangered species, or for research purposes.
- For animals to be returned or released to the wild, a risk assessment per the [International Union for the Conservation of Nature-World Organisation for Animal Health guidelines](#)  (IUCN-OIE) should be conducted to assess the risks and benefits of such a release. This risk assessment should include considerations for testing these animals for SARS-CoV-2.

Who this guidance is for: Veterinarians, biologists, and wildlife health specialists who work with free-living wildlife and who may be investigating wildlife morbidity or mortality events or managing the health of free-living wildlife populations during the COVID-19 pandemic.

Purpose: To facilitate decision-making regarding the testing of wildlife for SARS-CoV-2.

Despite concerns about human-to-wildlife transmission of SARS-CoV-2, the virus that causes COVID-19, routine testing for the virus in free-living or captive North American wildlife species is not currently recommended. However, there may be situations in which testing should be considered. This information may be useful for improving understanding of the epidemiology of the virus in wildlife populations and in applying necessary management actions. These recommendations do not apply to non-domestic species in human care (e.g., zoological facilities) except when free-living wildlife are temporarily in human care for research or rehabilitation.



Before testing sick or dead wildlife for SARS-CoV-2, more common causes of morbidity and mortality should be ruled out, unless there is cause for suspicion of previous exposure to SARS-CoV-2.

Note: The testing of wildlife for research purposes is beyond the scope of this document. Please refer to the [OIE Considerations for sampling, testing, and reporting of SARS-CoV-2 in animals](#)  [325 KB, 6 pages]  for additional information.

Testing may be considered when:


1. Morbidity and mortality event-based surveillance including detection in wildlife with clinical signs or post-mortem lesions consistent with a coronavirus infection (i.e., respiratory or gastrointestinal signs)¹ and in animals that are found dead or are euthanized when there is cause for suspicion of previous exposure to SARS-CoV-2.
2. Threatened or endangered species or species of special concern, particularly wildlife with clinical signs consistent with coronavirus infection (i.e., respiratory or gastrointestinal clinical signs),¹ and testing to prevent SARS-CoV-2 infection in endangered and vulnerable populations.

Biological sample collection and testing

Preferred samples for virus isolation and viral nucleic acid testing include nasal swab, oropharyngeal swab, and/or rectal swab. Samples may also be taken from internal organs collected post-mortem, or a fecal sample may be used in situations where direct sampling is not possible or may compromise animal welfare. Contact the laboratory in advance for instructions on proper sample collection, storage, and transport, and use [appropriate personal protective equipment](#)  [\[325 Kb, 6 pages\]](#)  when collecting samples.

Laboratories testing for SARS-CoV-2 should use a validated test, have established protocols, and conduct testing under appropriate biosafety conditions. Currently, there is little information on the sensitivity or specificity of various diagnostic assays among different animal species, and there is no standardized, validated test in animals. Therefore, decisions relying on the ability to predict the true presence or absence of the virus—for example, in situations when wildlife are released from captivity—should be considered in this context. As testing capabilities for SARS-CoV-2 increase and we learn more about this virus, the recommendations for testing in wildlife species will be updated.

Collaboration and reporting

Wildlife health specialists who are submitting samples for SARS-CoV-2 testing should communicate with relevant state wildlife veterinarians, state public health veterinarians, and state animal health officials to ensure they are aware of and able to participate in decisions about testing. Federal partners at the U.S. Department of the Interior, CDC, and U.S. Department of Agriculture (USDA) are also available to consult on testing decisions, test interpretation, human health, and animal management. If a SARS-CoV-2 test is positive, wildlife health specialists should communicate the results promptly with state and federal One Health partners and submit samples to the USDA APHIS [National Veterinary Services Laboratories \(NVSL\)](#)  for confirmatory testing. NVSL will report positive results to the World Organisation for Animal Health (OIE). Results should not be released publicly until confirmatory testing has been completed and coordinated among relevant partners. These confirmatory testing and reporting responsibilities apply to all unintentionally exposed wildlife. Results from intentional exposure as part of a controlled research study in a laboratory do not need to be immediately reported to the OIE and should be provided to the OIE in a summary report.

More information

[CDC COVID-19 and Animals](#)

[CDC Evaluation for SARS-CoV-2 Testing in Animals](#)

[CDC COVID-19 and Animal FAQs](#)

[CDC Interim Infection Prevention and Control Guidance for Veterinary Clinics](#)

[USDA SARS-CoV-2 Case Definition](#)  [746 KB, 2 pages] [↗](#)

[USDA Animal Testing FAQs for State Animal and Public Health Officials](#)  [164 KB, 2 pages] [↗](#)

[World Organisation for Animal Health: Q&As on COVID-19](#) [↗](#)

[World Organisation for Animal Health: Considerations for sampling, testing, and reporting of SARS-CoV-2 in animals](#)  [325 KB, 6 pages] [↗](#)

Footnotes

¹Although the clinical spectrum of illness for this virus remains largely undefined in animals, clinical signs more likely to be compatible with SARS-CoV-2 infection in mammalian species may include a combination of the following:

- Fever
- Coughing
- Difficulty breathing or shortness of breath
- Lethargy
- Sneezing
- Nasal discharge
- Ocular discharge
- Vomiting
- Diarrhea

Page last reviewed: June 11, 2020

Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases