



July 22, 2020

Florida Fish and Wildlife Conservation Commission

Commissioners

Robert A. Spottswood
Chairman
Key West

Michael W. Sole
Vice Chairman
Tequesta

Rodney Barreto
Coral Gables

Steven Hudson
Fort Lauderdale

Gary Lester
Oxford

Gary Nicklaus
Jupiter

Sonya Rood
St. Augustine

Executive Staff

Eric Sutton
Executive Director

Thomas H. Eason, Ph.D.
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

**Fish and Wildlife
Research Institute
Gil McRae**
Director

727-896-8626
727-823-0166 FAX

*Managing fish and wildlife
resources for their long-term well-
being and the benefit of people.*

**Fish and Wildlife
Research Institute**
Lovett E. Williams Jr.
Wildlife Research Laboratory
1105 SW Williston Road
Gainesville, Florida
32601-9044
Voice: (386) 758-0525
Fax: (352) 955-2183
Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)
MyFWC.com/Research

Recommendations to Minimize Impacts of SARS-CoV-2 to Florida's Wildlife

Florida Fish and Wildlife Conservation Commission (FWC) staff is monitoring emerging information on wildlife health concerns related to SARS-CoV-2 (CoV-2; the virus that causes COVID-19). The FWC is engaged with experts across the country assessing risks associated with wildlife contracting the virus. Information is unfolding rapidly on this topic, and staff will continue to apply available science to protect wildlife. Multiple resources are listed at the end of this document, and readers are especially encouraged to monitor resource #1 for updates relative to CoV-2 in animals.

As these issues progress, people in Florida will likely continue to encounter sick or injured wildlife or face issues involving nuisance wildlife during this pandemic. People in these situations may take actions themselves, seek assistance from FWC and other agencies, or seek assistance from wildlife rehabilitators, wildlife control operators, or captive wildlife facilities. We recognize and appreciate the services that wildlife rehabilitators, wildlife control operators, and captive wildlife facilities continue to provide. We acknowledge that many of you are working under limited capacity and persisting because of your dedication to conserving wildlife. There is evidence that people can transmit CoV-2 to wildlife. Given the possibility of transmitting CoV-2 from people to wildlife, there is risk involved in handling or working near wildlife that may be susceptible to CoV-2. Having contact with, or being in close proximity to, wildlife increases the chances of transmission.

The only ways to avoid risk from COVID-19 in situations involving people and wildlife are for people to avoid coming into contact with, and avoid being near, wildlife that are potentially susceptible to the CoV-2 virus. If it becomes necessary for people to come into contact with wildlife or work near wildlife for rehabilitation or to resolve nuisance situations, then it is essential to minimize risk from COVID-19 to people and wildlife by following all of the applicable protocols and recommendations for those situations.

The recommendations presented below are intended to minimize impacts to wildlife populations by minimizing the risk of wildlife contracting CoV-2. This cautious approach is based on protocols and guidance issued by the National Wildlife Health Center (NWHC), U.S. Fish and Wildlife Service (USFWS), the National Wildlife Rehabilitators Association (NWRA), and the National Wildlife Control Operators Association (NWCOA). Recommendations will be updated as new information emerges.



Florida Fish and Wildlife Conservation Commission

Commissioners

Robert A. Spottswood
Chairman
Key West

Michael W. Sole
Vice Chairman
Tequesta

Rodney Barreto
Coral Gables

Steven Hudson
Fort Lauderdale

Gary Lester
Oxford

Gary Nicklaus
Jupiter

Sonya Rood
St. Augustine

Executive Staff

Eric Sutton
Executive Director

Thomas H. Eason, Ph.D.
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

**Fish and Wildlife
Research Institute
Gil McRae**
Director

727-896-8626
727-823-0166 FAX

*Managing fish and wildlife
resources for their long-term well-
being and the benefit of people.*

**Fish and Wildlife
Research Institute**
Lovett E. Williams Jr.
Wildlife Research Laboratory
1105 SW Williston Road
Gainesville, Florida
32601-9044
Voice: (386) 758-0525
Fax: (352) 955-2183
Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)
MyFWC.com/Research

TAXA THAT MAY BE SUSCEPTIBLE THE COV-2 VIRUS

Based on a limited number of confirmed cases and concerns among wildlife disease experts, the following taxa are considered susceptible, or potentially susceptible, to contracting CoV-2.

- 1) Felids (cats, bobcats, panthers)
- 2) Mustelids (mink, ferrets, river otters, long-tailed weasel). Although studies have not yet been done on closely related taxa, such as mephitids (skunks) and procyonids (raccoons), it may be advisable to take precautions when working with these taxa.
- 3) Canids (dogs, coyotes, fox)
- 4) Bats
- 5) Some rodent families, such as Cricetids, which includes hamsters, mice, and rats

GENERAL RECOMMENDATIONS

- Any person who may have been exposed to CoV-2 or shows any clinical signs of COVID-19 should cease contact with wildlife until a health professional determines they are no longer infected.
- Report to FWC any CoV-2 susceptible wildlife that may have been exposed to a person with COVID-19 and that are displaying clinical signs consistent with COVID-19. This may include respiratory illness, such as a dry cough or wheezing, and gastrointestinal signs such as diarrhea. Email FWC Veterinarian Dr. Lisa Shender (Lisa.Shender@MyFWC.com) to initiate a conversation regarding your observations and whether laboratory testing may be warranted.
- Avoid unnecessary handling or other contact with species that may be susceptible to the CoV-2 virus, and related wildlife species.
- Follow the appropriate guidance from the NWHC, NWCOA, and/or NWRA on the use of PPE when handling or working near all wildlife species that are potentially susceptible to CoV-2. Keep in mind that people who are infected with CoV-2 can be asymptomatic and shedding virus. Therefore, PPE guidance should be adhered to at all times.
 - A face mask should be worn to block or minimize the exchange of respiratory droplets. Acceptable face masks include cloth masks, surgical masks and dust masks. An N95 mask is also an option; however, per CDC guidelines, respirator use should be in the context of a complete respiratory protection program in accordance with OSHA Respiratory Protection standard (29 CFR 1910.134), which includes medical evaluations, training, and fit testing.
 - In addition, the use of a face shield or goggles, in combination with a mask, is recommended when there is a risk of sprays/splatters. This is especially important if the animal being handled has clinical signs consistent with COVID-19 or has been in contact with a person with COVID-19.
 - Disposable exam gloves or other reusable gloves (e.g., rubber dish-washing gloves) that can be decontaminated should be worn to prevent spread of pathogens between animals, from animals to humans, or vice versa.



Florida Fish and Wildlife Conservation Commission

Commissioners

Robert A. Spottswood
Chairman
Key West

Michael W. Sole
Vice Chairman
Tequesta

Rodney Barreto
Coral Gables

Steven Hudson
Fort Lauderdale

Gary Lester
Oxford

Gary Nicklaus
Jupiter

Sonya Rood
St. Augustine

Executive Staff

Eric Sutton
Executive Director

Thomas H. Eason, Ph.D.
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

**Fish and Wildlife
Research Institute
Gil McRae**
Director

727-896-8626
727-823-0166 FAX

*Managing fish and wildlife
resources for their long-term well-
being and the benefit of people.*

**Fish and Wildlife
Research Institute**
Lovett E. Williams Jr.
Wildlife Research Laboratory
1105 SW Williston Road
Gainesville, Florida
32601-9044
Voice: (386) 758-0525
Fax: (352) 955-2183
Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)
MyFWC.com/Research

- Washable or disposable coveralls, or a change of clothing and footwear, should be used to prevent movement of pathogens between animal enclosure rooms and work sites.
- Disinfect all non-disposable equipment used in the capture, handling, transport, rehabilitation, and husbandry of wildlife potentially susceptible to CoV-2. See Resource #8 below for effective disinfectants and required contact times.

ADDITIONAL SPECIFIC RECOMMENDATIONS FOR WILDLIFE CARE

- Wildlife rehabilitation centers should follow the general guidelines stated above, in addition to the recommendations below.
- Wildlife rehabilitators should follow NWRA CoV-2 bat recommendations for all wildlife potentially susceptible to CoV-2 (Resource #7 below).
- Wildlife susceptible, or potentially susceptible, to CoV-2 should only be admitted or maintained in situations where all recommended protocols to minimize or avoid the transmission of CoV-2 can be followed at all times. If these conditions cannot be met, consider referring the public citizen to a nearby wildlife center that can better meet these protocols.
- Follow guidelines on disease control outlined in the document “Minimum Standards for Wildlife Rehabilitation, 4th edition (Resource #10 below).
- Minimize frequent human proximity to susceptible species, by maintaining those patients in well-ventilated areas isolated from non-susceptible species, as well as from other susceptible species within different taxa.
- Distance cages or other enclosures used for susceptible species far enough apart (at least 6 feet) to avoid potential transmission between patients. The use of a solid barrier between enclosures (e.g., between open mesh style small cages) may also be beneficial to prevent transmission.
- Reduce potential CoV-2 exposure of asymptomatic humans to wildlife by limiting the number of staff who handle individual susceptible wildlife species.
- Animals who have respiratory (coughing, sneezing, nasal discharge, etc.) or gastrointestinal signs (diarrhea, vomiting) should be kept isolated. Staff contact should be limited, and full PPE should be utilized. If possible, the animal should be seen by a veterinarian, or at minimum, staff should request remote consultation from a veterinarian.
- CoV-2 can be shed in the feces of some animals (and people) and is suspected to have played a role during at least one CoV-2 outbreak in captive mink. Feces can also transmit other common wildlife pathogens. Every facility should have a protocol to ensure regular removal of feces with proper disposal.
- Footbaths containing a dilute bleach solution should be placed at entry and exit points in areas where CoV-2 susceptible species are housed. Footbath solutions should be changed weekly to be effective.
- Patient-specific dedicated gowns or lab coats should be worn when directly handling CoV-2 susceptible patients to prevent clothing from serving as a fomite transmission.



Florida Fish and Wildlife Conservation Commission

Commissioners

Robert A. Spottswood
Chairman
Key West

Michael W. Sole
Vice Chairman
Tequesta

Rodney Barreto
Coral Gables

Steven Hudson
Fort Lauderdale

Gary Lester
Oxford

Gary Nicklaus
Jupiter

Sonya Rood
St. Augustine

Executive Staff

Eric Sutton
Executive Director

Thomas H. Eason, Ph.D.
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

**Fish and Wildlife
Research Institute
Gil McRae**
Director

727-896-8626
727-823-0166 FAX

*Managing fish and wildlife
resources for their long-term well-
being and the benefit of people.*

**Fish and Wildlife
Research Institute**
Lovett E. Williams Jr.
Wildlife Research Laboratory
1105 SW Williston Road
Gainesville, Florida
32601-9044
Voice: (386) 758-0525
Fax: (352) 955-2183
Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)
MyFWC.com/Research

FLORIDA CONTACT INFORMATION

- For questions regarding wildlife in captivity, contact [FWC Law Enforcement – Captive Wildlife](#).
- Report sick or dead bats using [FWC's Bat Mortality Report Form](#).
- For questions related to COVID-19 in Florida, contact the [Department of Health's dedicated COVID-19 Center](#) by calling 866-779-6121 or emailing COVID-19@flhealth.gov.

RESOURCES [If hyperlinks become unavailable, please let FWC know]

- 1) The Centers for Disease Control's (CDC's) information about [COVID-19 and Animals](#).
- 2) The online database of [current scientific literature on SARS-CoV-2 and COVID 19](#).
- 3) The CDC's [Frequently Asked Questions regarding COVID-19 and animals](#).
- 4) [The CDC's guidelines for veterinary clinics treating companion animals during the COVID-19 response](#).
- 5) NWHC recommendations for the use of personal protective equipment and disinfection protocols when handling or working around wildlife to minimize or avoid transmission of SARS-CoV-2: [NWHC Operations During the COVID-19 Pandemic and Information About Coronaviruses in Wildlife](#).
- 6) The Association of Fish and Wildlife Agencies (AFWA) Fish & Wildlife Health Committee has produced guidelines for working with wildlife to minimize or avoid transmission of CoV-2. One document pertains specifically to [bats](#) and a second document to working with [felids, mustelids, and canids](#).
- 7) The NWRA [position statement says that bats could continue to be rehabilitated as long as appropriate safety measures are followed](#), but it is worth noting that the National Wildlife Health Center is still conducting research to determine the susceptibility of North American bats to CoV-2.
- 8) The NWCOA [recommended protocols](#) for anyone working in close proximity with bats to utilize proper PPE and follow disinfection protocols to prevent the possible spread of COVID-19 to bat populations.
- 9) Information on appropriate [disinfectants and contact time](#).
- 10) The reference book [Minimum Standards for Wildlife Rehabilitation, 4th edition](#).
- 11) [Footbaths](#) for animal facilities published by UC Davis.
- 12) The IUCN Species Survival Commission Bat Specialist Group has released two living documents with detailed strategies to reduce the risk of SARS CoV-2 from humans to bats. The first document pertains to [researchers](#) and the second document to [wildlife rehabilitators](#).