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Reducing the Risk of Human Exposure to Wildlife Diseases

article by **Tyler A. Campbell**, Research Wildlife Biologist

As summer winds down and we prepare our children and grandchildren to go back to school, many of us begin to display the first signs of “buck fever.” And risk of exposure to serious wildlife diseases also increases as we spend more time outdoors.

As a professional biologist working for a government agency, I am required to carry a card alerting medical personnel that I may have been exposed to certain zoonotic diseases (animal diseases that can infect man) not routinely considered in differential diagnosis. Some of these pathogens are obscure and seldom heard of, such as monkeypox and Q fever; others more commonly make headlines, such as influenza, West Nile virus, Lyme disease, and Hantavirus Pulmonary Syndrome.

Hunters, ranchers, and biologists who work with wildlife have an increased risk of acquiring these diseases directly from animal hosts or their parasites. Here are some precautions to take to avoid exposure to wildlife pathogens as you go afield this season (modified from the Centers for Disease Control and Prevention, <http://www.cdc.gov/>).

First, use extreme caution when approaching or handling wildlife that looks ill or displays abnormal behavior to protect against diseases that are transmitted directly by wildlife (e.g., through contact with saliva).

Second, practice good personal hygiene and cleanliness of equipment through:

- Wearing protective clothing, particularly disposable or plastic gloves, when handling or skinning wildlife.

- Scrubbing the work area, knives, other tools, and reusable gloves with soap or detergent followed by disinfection with diluted household bleach.
- Avoiding eating and drinking while handling or skinning animals and wash hands thoroughly when finished.
- Safely disposing of carcasses and tissues as well as any contaminated disposable items like plastic gloves.
- Cooking meat from wild game thoroughly before eating.
- Contacting a physician if you become sick following exposure to a wild animal or its parasites, informing the physician of your possible exposure to a zoonotic disease.

Third, when visiting sites known to contain contaminated soil or accumulations of animal feces (e.g., bird roosts, caves or buildings containing bat colonies, or rodent-infested structures) wear protective masks to prevent inhalation of fungal spores or other pathogens.

Fourth, protect yourself from vector-borne and tick-transmitted diseases by:

- Avoiding tick-infested areas and exposure to mosquitoes, especially in early-evening hours, when possible.
- Tucking pant legs into socks and taping the tops of socks over pant legs to better see crawling ticks.
- Using insect repellent on exposed skin.
- Checking yourself frequently for ticks and removing them.

- After outdoor activity, removing and washing field clothes promptly and drying clothes at high temperature.
- Inspecting your body carefully and removing attached ticks with pointed tweezers; grasping ticks as close to the skin as possible and pulling them loose with a slow, steady motion.
- Inspecting pets carefully for ticks and removing ticks soon after returning from the outdoors.

Finally, knowledge is power. You can help prevent exposure to wildlife diseases by studying and obtaining knowledge of the wildlife diseases present in your general area and the specific habitats and times of year that present the greatest risk.

Knowledge and recognition of the early symptoms of the disease and conditions of exposure are essential in

preventing severe illness. For example, if you become ill following a flea bite and you recognize the early symptoms of the disease, seeking medical care and informing the attending physician of your possible exposure to plague will aid in the correct treatment of your illness and reduce the risk of complications. Excellent sources of wildlife disease information are the Centers for Disease Control and Prevention (website above) and Texas Department of State Health Services (<http://www.dshs.state.tx.us/>).

For more information on feral hog disease abatement research at the USDA-APHIS-Wildlife Services-National Wildlife Research Center-Texas Field Station within the Caesar Kleberg Wildlife Research Institute at Texas A&M University-Kingsville please visit: http://www.aphis.usda.gov/wildlife_damage/nwrc/research/pseudorabies/index.shtml.



The first symptoms of “buck fever” are sweeping over Texas’ outdoor enthusiasts. With proper precautions in the coming hunting seasons, you can stay clear of the genuine diseases carried by wildlife.

Photo by **Hardy Jackson**

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