# Wildlife and Zoonotic Disease Surveillance

**Exceptional Item Request**

**FY 2020–21**

**$2 Million**

## Background

Wildlife-vectored diseases affect humans, livestock, and wildlife, and can cause millions of dollars in losses due to trade restrictions, public health campaigns, and lost production.

Outbreaks of tuberculosis in cattle, highly pathogenic avian influenza (HPAI) in poultry, and brucellosis in people and cattle from feral swine are recent examples. Vampire bat–vectored rabies pose additional concerns for cattle and humans as the bats extend their range northward in Mexico.

The Wildlife Services program of the Texas A&M AgriLife Extension Service has the potential to collect thousands of samples annually from feral hogs, coyotes, and waterfowl to test for pathogens such as rabies, HPAI, brucella, salmonella, and *E. coli*, but lacks funding to collect and analyze these samples.

## Program Description

Wildlife Services is a cooperative program that provides wildlife damage management assistance to landowners, state and federal agencies, and institutions. It is responsible for managing predators, rodent pests, and feral hogs to protect agriculture and natural resources, and it collaborates with the following state agencies and partners to provide early disease detection and response:

- Texas Department of State Health Services
- Texas Animal Health Commission (TAHC)
- Texas Parks and Wildlife Department
- Texas A&M Veterinary Medical Diagnostic Laboratory (TVMDL)

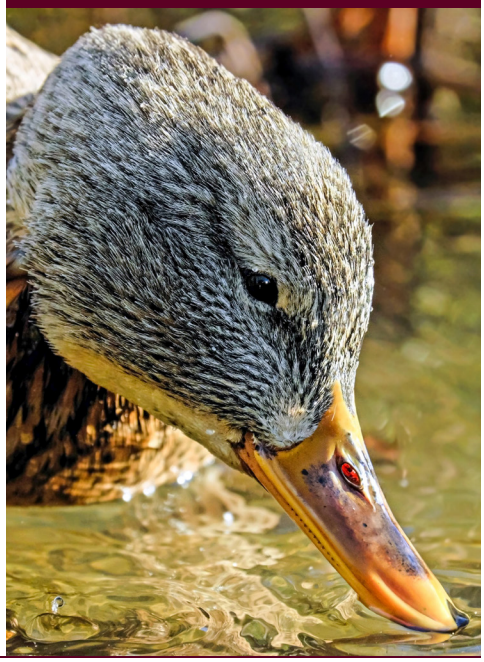
## Future Funding

Funds would support personnel, travel, and supplies to achieve the following:

- Establish systematic sampling for animal diseases so they can be detected before they can affect human or livestock health.
- Collect and analyze 4,000 disease samples each year from targeted areas, emphasizing early detection and background monitoring.
- Share results with partner agencies.
- Develop and implement an effective response with partner agencies when a disease pathogen is detected.
- Respond to a disease outbreak if a partner agency needs help with wildlife surveillance or management.

## Objectives

- Create a systematic wildlife disease surveillance system to identify, monitor, and address diseases and emerging health issues that can harm livestock or humans.
- Provide information to public health officials, animal health officials and practitioners, and wildlife managers to help them better predict, prevent, and respond to outbreaks.



Managing wildlife-vectored diseases is possible, as the successful campaigns for rabies management in Texas have proven.

Surveillance for wildlife diseases of concern is necessary to detect and manage zoonotic and production diseases. The potential economic consequences of waiting for a disease outbreak are enormous. Early detection and response can save millions in losses from a single event.

## Surveillance

- Wildlife Services has the capacity to collect thousands of samples each year.
- TAHC and TVMDL laboratories analyze samples.

## Collaboration

- Partner agencies share surveillance results.
- Agencies work collaboratively to determine response strategy.

## Response

- Background surveillance provides critical information.
- Wildlife Services monitors the success of the response.
  - In some cases, continued enhanced monitoring and public awareness campaigns will suffice.
  - In other instances, vector management, wildlife population control, and separation of livestock from wildlife may be needed.

## Successful Outcomes

- Lives saved.
- Economic losses prevented.
- Public health, safety, and property protected.
- Agricultural, industrial, and natural resources safeguarded.

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