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## **Wildlife Mortality Investigations: monitoring wildlife health, detecting enzootic events, and identifying emerging diseases**

The Wildlife Health Program investigates reports of dead and dying wildlife whenever possible. Frequently, investigations are constrained by the impact of environmental conditions on the quality of the samples. We are aided in this effort by Department personnel in the field (Wildlife Managers, Regional biologists, and Game, Nongame and Research branch biologists). We also investigate reports made directly to the program by the public. Investigations are prioritized based on availability of personnel, significance of the species in terms of wildlife management, number of animals or birds involved in the event, and potential impact of a disease or mortality event in the species.



We use a variety of methods to reach a conclusion regarding the cause of the mortality event: necropsy, histology, bacterial and fungal cultures, polymerase chain reaction, water analysis, examination of stomach contents, and chemical analysis of tissues. Among the cases where we were able to determine the cause of death, we have detected anticoagulant rodenticide in a javelina, Valley Fever in coyotes, foxes and javelina, bluetongue virus in desert bighorn sheep, tularemia in cottontails, botulism in ducks, and salmonella in a desert bighorn sheep lamb. In about one third of the cases we are unable to determine the cause of death.

### **Objectives:**

To detect diseases of concern (such as pneumonia in desert bighorn sheep), emerging infectious diseases (such as pigeon paramyxovirus 1 in Eurasian collared doves), public health threats (such as an increase in the occurrence of rabies in skunks in Santa Cruz County), and illegal killing of wildlife (such as the killing of more than 50 Brazilian free-tailed bats in Tucson).

### **Project contacts**

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