



**National Wildlife Health Center
Wildlife Health Bulletin 2020-05**

Continued Expansion of Rabbit Hemorrhagic Disease Virus 2 in North America and Additional Instructions Regarding Mortality Event Investigations

To: Natural Resource/Conservation Managers

From: Dr. Jonathan Sleeman, Center Director, USGS National Wildlife Health Center

Date: May 7, 2020

Rabbit hemorrhagic disease virus 2 (RHDV2) has continued to spread in wild rabbits in North America. As of early May 2020, RHDV2 has been confirmed in wild rabbits in four counties (Bernalillo, Dona Ana, Eddy, and Santa Fe) in New Mexico, seven counties (Apache, Cochise, Coconino, Graham, Greenlee, Navajo, and Pima) in Arizona, six counties (El Paso, Hudspeth, Lubbock, Pecos, Randall, and Terrell) in Texas, and one county (Alamosa) in Colorado (Figure 1). In addition, concurrent RHDV (not-typed) events have been reported in Jiménez, Ahumada, and Allende municipalities, Chihuahua, Mexico. To date, rabbit mortality events reported by state natural resource agencies have varied from three to >1000 dead rabbits. In addition to the black-tailed jackrabbits (*Lepus californicus*) and desert cottontails (*Sylvilagus audubonii*) reported in the [April 13, 2020 Wildlife Health Bulletin](#), RHDV2 has also been confirmed in mountain cottontails (*Sylvilagus nuttallii*) and antelope jackrabbit (*Lepus alleni*) from Arizona and eastern cottontails (*Sylvilagus floridanus*) from Colorado. For up-to-date, national-scale information on the location, number, and species affected by the on-going RHDV2 events in wild rabbits, please visit the Wildlife Health Information Sharing Partnership-event reporting system ([WHISPers](#)). By creating an account in WHISPers, users can also sign up for notifications to be automatically alerted about RHDV2 or other diseases of interest.

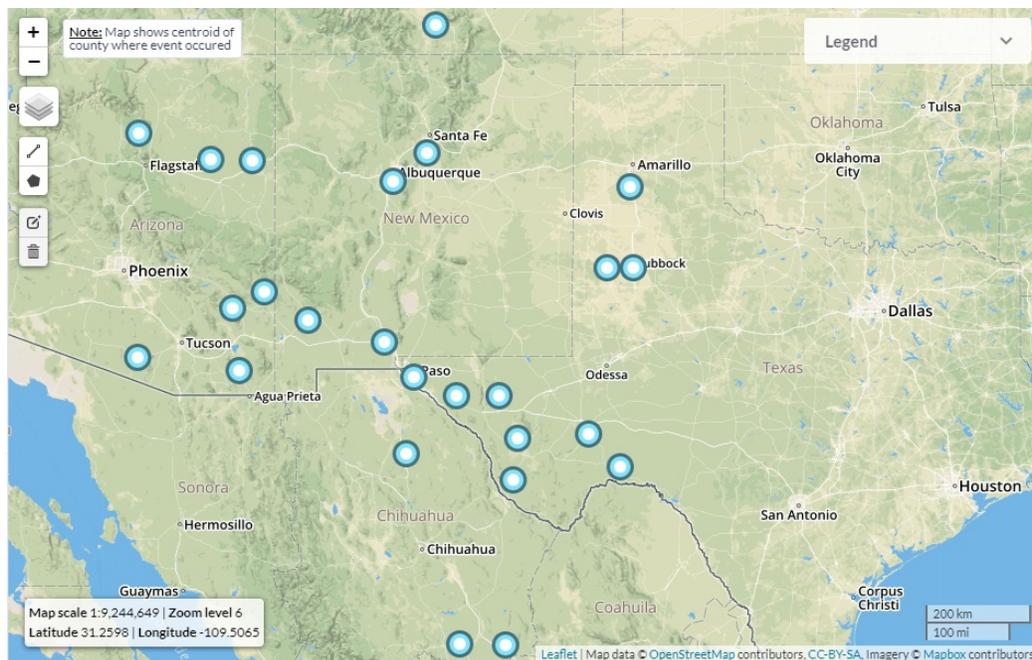


Figure 1: Location of mortality events in wild rabbits suspected or confirmed to be rabbit hemorrhagic disease virus 2 (RHDV2) in North America as of May 7, 2020. Map and detailed information can be found in [WHISPers](#). Circles represent county centroids for U.S. counties and municipalities in Mexico that have a confirmed or suspect RHDV2 mortality event in wild rabbits.

Vulnerable rabbit species such as those officially recognized as state or federally listed threatened and endangered may be further threatened by RHDV2. Even for those populations currently considered numerous, declines in lagomorphs can have cascading effects in natural systems as they are important prey for numerous predators (Delibes-Mateos et al. 2008).

Due to its classification as a foreign animal disease, laboratory testing for RHDV2 is currently restricted to the U.S. Department of Agriculture's (USDA) Foreign Animal Disease Diagnostic Laboratory (FADDL). Consequently, the USGS National Wildlife Health Center (NWHC) is coordinating with the USDA to assist state and federal wildlife management agencies to investigate mortality events in wild rabbits. If you request assistance to investigate a rabbit mortality event, we typically request **1-3 carcasses of each affected lagomorph species per county** (exceptions can be made as per management needs). We can also assist you in investigation of any non-lagomorph species that may be observed in association with lagomorph mortality. Pending necropsy findings, NWHC will complete a full cause-of-death evaluation for all species, including sending lagomorph samples to FADDL for RHDV2 testing, as appropriate. To build additional capacity for RHDV2 testing, USDA has begun the process for allowing member laboratories of the National Animal Health Laboratory Network (NAHLN) to conduct tests for this virus. As a member of the NAHLN, once NWHC is approved to conduct RHDV2 testing, diagnostic capacity will increase and we will send out updated guidance. If you investigate rabbit mortality events using an alternative laboratory, please consider contacting us so that we include those events in WHISPers and continue to provide situational awareness for the wildlife health community at large.

Biosafety Recommendations

The strain of RHDV2 recently confirmed in wild rabbits by the USDA appears to be highly contagious. To prevent the spread of RHDV2 between populations of wild rabbits, wildlife professionals investigating morbidity or mortality events involving these species, or who handle live rabbits, should wear personal protective equipment (PPE) and decontaminate all field gear, clothes, and vehicles. General PPE recommendations for investigating morbidity or mortality in rabbits should include boots, gloves, and outer clothing that can be bagged, cleaned, and disinfected; or bagged and thrown away. Specific PPE recommendations should be determined by individual agencies based upon known and anticipated risks relevant to the disease event under investigation. In addition, to avoid inadvertent contributions to the spread of this virus, we discourage field necropsies and instead recommend whole carcasses be collected, at least double bagged, and transported to an appropriate Biological Safety Level 2 or higher containment laboratory for necropsy. Carcasses not submitted for necropsy should be incinerated or buried deep enough to prevent access by scavengers to avoid additional environmental contamination. Clean and disinfect equipment that is used at these locations prior to leaving work sites with 10% sodium hydroxide or 1 to 2% formalin to limit spread of RHDV2 or other potential pathogens. Household bleach mixed at a 1:10 dilution (10%) has also been suggested for decontamination. Wildlife professionals with domestic rabbits and who encounter live or dead rabbits should shower and change clothes before contact with domestic animals to prevent transmission.

Disease Investigation Services

To request diagnostic services or report wildlife mortality, please contact the USGS National Wildlife Health Center at **608-270-2480** or by email at NWHC-epi@usgs.gov, and a field epidemiologist will be

available to discuss the case. To report wildlife mortality events in Hawaii or Pacific Island territories, please contact the Honolulu Field Station at 808-792-9520 or email Thierry Work at thierry_work@usgs.gov.

Further information about our services can be found at www.usgs.gov/nwhc/services. To learn more about submitting samples and reporting events, go to www.usgs.gov/nwhc/submit. Summary information on wildlife morbidity/mortality events reported to NWHC can be viewed and searched on the [WHISPers website](#). If you have any questions or concerns regarding the scientific and technical services we provide, please do not hesitate to contact NWHC Director Jonathan Sleeman at 608- 270-2401, jsleeman@usgs.gov.

WILDLIFE HEALTH BULLETINS are distributed to natural resource/conservation agencies to provide and promote information exchange about significant wildlife health threats. Past Wildlife Health Bulletins are available [on our website](#). If you would like to be added to or removed from the mailing list for these Bulletins, please email: nwhcoutreachdb@usgs.gov.

Literature Cited

Delibes-Mateos, M., Delibes, M., Ferreras, P., and R. Villafuerte. 2008. Key role of European Rabbits in the conservation of the Western Mediterranean Basin hotspot. *Conservation Biology* 22:1106–1117.