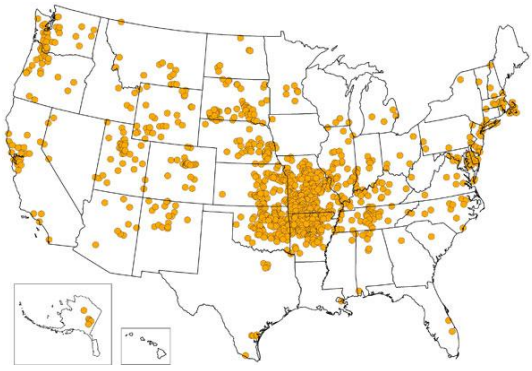
INDIANA DIVISION OF FISH & WILDLIFE

FACT SHEET

Tularemia in Eastern Cottontails

WILDLIFE DISEASE • INDIANA

Photo Credit: CDC/Dr.T.Sellers, Emory Univ.



CDC: Reported Human Cases of Tularemia, United States, 2001-2010

What is Tularemia?

Tularemia is a disease of rabbits and rodents caused by very hardy, extremely infectious kind of bacteria. The bacteria can be transmitted by a variety of ways, put primarily biting insects. Many species, including humans, are susceptible to infection. Since its identification in the nineteenth century, tularemia has been reported from all States (except Hawaii), Canada, Mexico, Venezuela, Ecuador and Colombia. The disease has also been reported from Japan, Russia, Turkey, Israel, Scandinavia, central and western Europe, Thailand and Tunisia. In the U.S., human infections are primarily the result of dressing or skinning infected rabbits; rabbits are the source of infection in 90% of human cases, 70% of which result from contacts with the genus *Sylvilagus* (cottontails).

What are the effects of Tularemia?

The symptoms of tularemia in wildlife are not always evident or clearly recognized. Furthermore, the opportunities to observe these signs in natural outbreaks among wild animal populations are extremely limited; when infected animals are found, they are usually dying or dead. Tularemic cottontails have been observed to behave oddly, to run slowly, and to be captured easily. Infected rabbits appear to be tame or in a stupor; they do not raise their heads or carry their front feet well; they rub their noses and forefeet into the ground. They have recurring muscle spasms, and stagger for a few yards between spasms. Typical histological signs are white spots throughout the liver. At times, tularemia outbreaks kill large numbers of rabbits and other wild animals.

In Humans, Tularemia is characterized by a sudden onset of high fever and chills, joint and muscle pain, weakness, and swollen, painful lymph nodes. Slow-healing sores or lesions develop at the entry site of the bacteria (cut/scratch/bug bite). If untreated, Tularemia can be fatal to humans.

How does Tularemia occur?

Tularemia is caused by the bacteria *Francisella tularensis* and the bacteria is maintained in rabbits, hares, rodents, and birds by tick transmission. Tularemia is transmitted to humans through environmental exposure, which typically occurs through:

- Biting infected arthropods, primarily ticks and deerflies,
- Handling infected animals or animal carcasses,
- Consuming contaminated water or food, such as improperly cooked game meat, and
- Inhaling aerosols contaminated with rodent urine, feces, or dander.

What should we do about Tularemia?

Since the disease can be fatal in humans, it does have a public health significance. Promptly seek medical care and treatment if symptoms develop. Use personal protection measures against ticks and other biting insects such as repellants and appropriate clothing. Hunters should be very suspicious of "lazy" rabbits, particularly early in the season, which are killed easily; any suspicious acting rabbits should not be consumed. Rubber gloves should be worn when dressing rabbits, and avoid contact with the face while handling dead rabbits. The meat of normal acting animals should be thoroughly cooked. If you suspect a cottontail may possibly have tularemia, please contact your local District Wildlife Biologist or the Bloomington Field Office. For more information, please visit: http://www.cdc.gov/Tularemia/

Sources: Tularemia Fact Sheet. Wildlife Disease. Michigan Department of Natural Resources. <www.michigan.gov /dnr>
Tularemia. Centers for Disease Control and Prevention. <http://www.cdc.gov/Tularemia/>

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