

RABIES WATCH

YOUR SOURCE FOR RABIES AWARENESS AND EDUCATION

FALL 2017, Issue #6

Update: Rabies Surveillance in the US

The most recent annual surveillance data from the Centers for Disease Control and Prevention (CDC) underscore the need for broader education about rabies risks and continued vigilance in cases of potential human exposure.

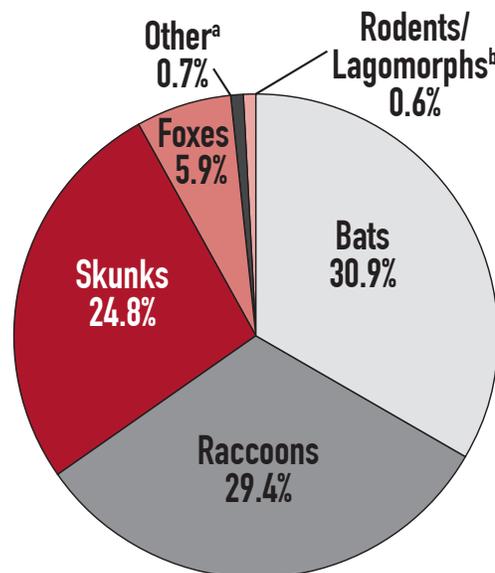
The CDC surveillance report highlights 2 key observations in the US:

1. For the first time ever, bats surpassed raccoons as the animal species most frequently reported as rabid in 2015.
2. Changes in rabies virus variants and the distribution of variants among wildlife species could become critical concerns in the near future.

Bats Are Now the #1 Rabid Species Among Wildlife

Of the more than 5500 US rabies cases recorded by CDC in 2015, 92.4% involved wildlife and 7.6% involved domestic animals. For the first time since recordkeeping began in the 1940s, bats accounted for the highest proportion of rabies cases (30.9%) among wildlife species, followed by raccoons (29.4%) and skunks (24.8%).

In 2015, Bats Emerged as the Most-Frequently Reported Species of Rabid Animal Among Wildlife (Percent of Reported Rabies Cases)



^a Includes opossum, bobcat, coyote, deer, ringtail, elk, mongoose, and otter.

^b Includes squirrel, groundhog, beaver, and rabbit.

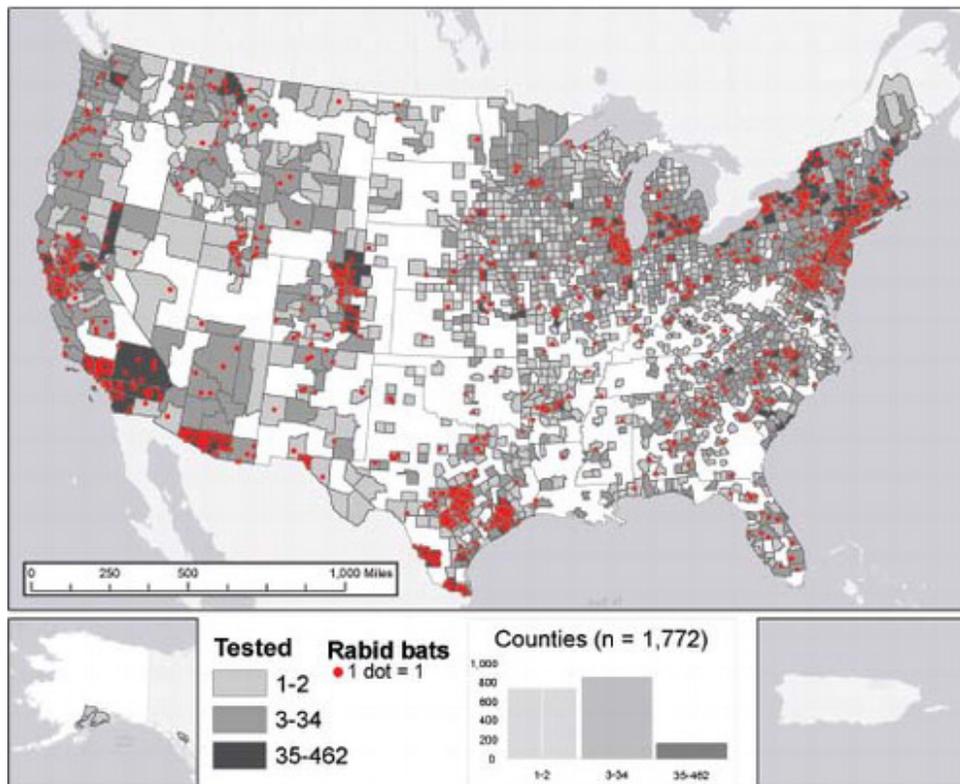
RABIES WATCH

All 48 contiguous US states reported rabid bats in 2015.

All 48 contiguous US states reported rabid bats in 2015, and 13 states reported that the incidence of rabid bats increased by 50% or more from the prior year. Nationally, the increase in rabid bat reports has averaged 4.5% per year since 1988.

At a more local level, 143 of 243 (59%) US counties that tested 5 or more bats for rabies from 2010 through 2015 were found to have experienced $\geq 100\%$ increases in the number of rabid bats in 2015 versus prior years. The most pronounced increases occurred in central Maryland, central and eastern Massachusetts, the Adirondack Mountain area of New York, and northeastern Illinois.

Reported Rabies Cases Involving Bats in 2015, by County



Thirteen states reported $\geq 50\%$ increases in rabid bats from 2014 to 2015; the most pronounced increases ($\geq 100\%$) occurred in central Maryland, central and eastern Massachusetts, the Adirondack Mountain area of New York, and northeastern Illinois.



RABIES WATCH

Bats and Viral Variants Are Cause for Concern

The emergence of bats as the leading rabid animal species causes special concerns for public health and clinical care. Bats are known to carry at least 20 viral variants beyond the 8 viral variants associated with terrestrial carnivores. Documented observation of bat-associated viral variants in other wildlife species, such as foxes, raises the troubling possibility of unexpected changes in rabies epidemiology and consequences. Additionally, bats cannot currently be vaccinated against rabies, in contrast to domestic animals and wildlife, such as raccoons, coyotes, and foxes, that may receive oral rabies vaccine through consumption of prepared bait.

Three Human Rabies Deaths Occurred in the US in 2015

To underscore the serious challenge of rabies, this CDC update summarized 3 human deaths due to rabies in 2015. None of these patients sought medical attention for their potential exposure incidents until rabies symptoms emerged, and none had received postexposure prophylaxis (PEP).

- A 65-year-old man presented for care due to vomiting and epigastric pain in Massachusetts after returning from a trip to the Philippines, where he had been bitten by a dog
- A 77-year-old woman from Wyoming presented for medical care with a 5-day history of progressive weakness and ataxia. A previously undisclosed incident involving a bat on her neck was not discovered by her healthcare providers until late in the disease course; antemortem rabies diagnostic testing confirmed the presence of rabies virus
- A 54-year-old man in Puerto Rico sought medical attention for fever, difficulty swallowing, and hand paresthesia following a mongoose bite

Taken as a whole, this CDC update reinforces that healthcare professionals and the public need to be educated about the real health risks of rabies from bats and other wildlife; exposure prevention; and the need to seek medical attention after potential exposure incidents, with accessibility to PEP for appropriate patients.

REFERENCE

Birhane MG, Cleaton JM, Monroe BP, et al. Rabies surveillance in the United States during 2015. *J Am Vet Med Assoc.* 2017;250(10):1117-1130.

**This article may be downloaded, printed, and distributed freely without copyright restriction.
For more information, go to www.rabieswatch.com**

FALL 2017, Issue #6