



## **Rabies in Animals, Texas - 2020**

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Rabies is a viral zoonosis affecting the central nervous system of warm-blooded animals. Transmission occurs when saliva containing rabies virus is introduced into an opening in the skin, usually via the bite (or possibly scratch) of a rabid animal. Though rare, transmission can also occur through contamination of mucous membranes. Animals considered to be high risk for transmitting rabies in Texas include bats, skunks, foxes, coyotes, and raccoons. Bats and skunks are the primary reservoirs for specific rabies virus variants (types) in Texas. Rabies infection in a species other than the reservoir species for the variant is considered "spillover." An example of spillover would be a cat infected with a skunk variant of rabies virus.

In 2020, 574 (6%) of 9,934 animal specimens in Texas that were tested (this report refers only to specimens confirmed as positive or negative) were positive for rabies. This was a 2% increase in cases from the 565 cases confirmed in 2019. In 2020, there were 58 positive rabies cases per 1,000 specimens tested, which was up from 47 positive rabies cases per 1,000

specimens tested in 2019. Yearly totals for 1994 through 2020 are illustrated in Figure 1.

During 2020, the highest monthly number of laboratory-confirmed rabies cases (79) occurred in September with bats (57) being the predominant rabid species reported; March had the second highest number of cases (71) with bats (36) being the predominant rabid species. For 2019, April had the highest number of reported cases (89, including 44 skunks), and May had the second highest number (71, including 30 skunks). Cases of rabies in 2020 were confirmed in 120 of the 254 Texas counties (Figure 2) compared with 112 counties with reported cases in 2019. Travis County had the highest number of reported rabies cases per county statewide with 77 cases (75 of which were bats) in 2020; Harris County had the second highest number of cases with 35 (all of which were bats). In 2019, Travis County again had the highest number of reported cases (72, 66 of which were bats), and Bexar County had the second highest (40, all of which were bats).

Rabid wildlife accounted for 529 (92%) of the confirmed cases throughout the state in 2020; in 2019, rabid wildlife accounted for 535 (95%) of the confirmed cases (Table 1). Bats were the primary source of positive cases reported in 2020 (47% of all positive cases). During 2020, 268 bats were positive for rabies compared with 289 (51% of all positive cases) in 2019. Of

all bats tested for rabies, 11% were positive in 2020 and 11% were positive in 2019. Rabies in bats is enzootic (endemic in animals) in Texas; there are numerous bat variants of rabies virus throughout the state. In 2020, there were two identified cases in which there was spillover of a bat rabies virus variant to a terrestrial animal; both were in raccoons.\*

During 2020, skunks had the second highest number of confirmed rabies cases with 208 (36% of all positive cases) compared with 173 (31% of all positive cases) in 2019. Of all skunks tested for rabies, 31% were positive in 2020 and 23% were positive in 2019. South-central skunk (SCS) remains an established variant of terrestrial rabies virus in Texas. Rabies cases in 2020 in which the SCS rabies virus variant could be confirmed included 203 skunks, 28 foxes, 25 cats, 23 raccoons, 8 dogs, 7 bovines, 2 caprines, 1 equine, and 1 ovine.

Rabid domestic animals continue to be a concern because they are more likely to have contact with humans than are rabid wildlife. In 2020, there were 45 reported rabies cases in domestic animals (8% of all positive cases); of these rabies cases, 25 were cats and 8 were dogs (Table 2). In 2019, there were 30 reported rabies cases in domestic animals (5% of all positive cases); of these rabies cases, 16 were cats and 6 were dogs.

\* A second raccoon with a bat rabies virus variant was added since the original report of just one raccoon due to a delayed laboratory finding.

## Oral Rabies Vaccination Program

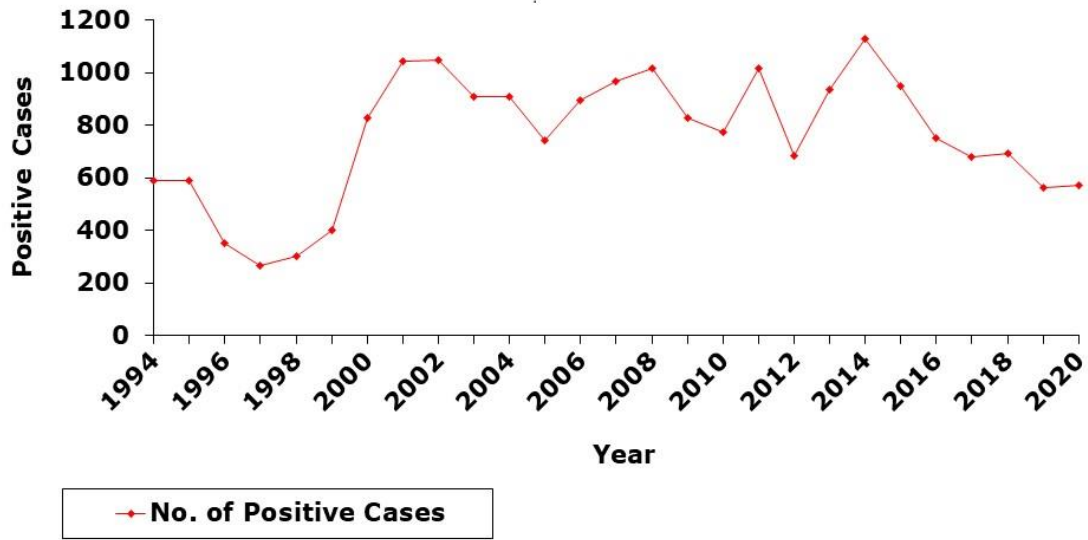
A canine rabies epizootic (an epidemic in animals) began in 1988 and ultimately involved 21 counties in South Texas. Statewide there were no reported cases with the domestic dog/coyote (DDC) variant of the rabies virus in 2020. The last reported case with the DDC rabies virus variant was in March 2004.

Similarly, a Texas gray fox rabies epizootic began in 1988, but it eventually involved 53 counties in West-Central Texas. Statewide there were no reported cases with the Texas fox (TF) variant of the rabies virus in 2020. The last reported case with the TF rabies virus variant was in a bovine in May 2013; previous to this case, the last reported case was in May 2009.

To control the canine and gray fox rabies epizootics, the Department of State Health Services initiated the Oral Rabies Vaccination Program (ORVP) for coyotes in South Texas in February 1995 and for gray foxes in West-Central Texas in January 1996. The goals of the ORVP were to create zones of vaccinated coyotes and gray foxes across the epizootic areas or, at a minimum, along the leading edges of the areas where these rabies variants were detected in order to halt the geographic spread of those variants and eventually eliminate the epizootics. Immunization was accomplished by

aerial distribution of edible baits containing oral rabies vaccine. The programs have continued annually and are now combined into a maintenance zone along the border with Mexico targeting reservoir species for the DDC and TF variants of the rabies virus, specifically coyotes and gray foxes, respectively. With the elimination of the DDC and TF variants from Texas, the ORVP now serves as an ongoing barrier to prevent reintroduction from Mexico.

Figure 1. Positive Animal Rabies Cases:  
Texas 1994 - 2020





**Table 1. Confirmed Cases of Rabies in Wild Animal Species:  
Texas 2019 and 2020**

<b>Species</b>	<b>2019</b>	<b>2020</b>
Bat	289	268
Coyote	1	0
Fox	29	28
Raccoon	43	25
Skunk	173	208
<b>Total</b>	<b>535</b>	<b>529</b>



**Table 2. Confirmed Cases of Rabies in Domestic Animal Species:  
Texas 2019 and 2020**

<b>Species</b>	<b>2019</b>	<b>2020</b>
Bovine	4	8
Caprine	0	2
Cat	16	25
Dog	6	8
Equine	4	1
Ovine	0	1
<b>Total</b>	<b>30</b>	<b>45</b>