

1999 PLAGUE SURVEILLANCE REPORT

(REVISED 10-10-2014)

Each year Texas Department of Health Zoonosis Control personnel, in cooperation with Texas Wildlife Damage Management Service, Texas Parks and Wildlife Department, and other agencies, collect serum samples from Texas wildlife. Samples are collected primarily from carnivores using Nobuto blood filter strips. Although most carnivores are resistant to plague, they develop antibodies when exposed, thereby making them good indicators of local plague activity.

During calendar year 1999, Texas Department of Health Bureau of Laboratories, Microbiology Services Division, Serology Branch tested 3,702 blood samples collected in 113 counties. Plague (*Yersinia pestis*) antibodies were found in 7 (0.19%) samples at a titer of 1:32 or greater from 3 counties (Table 1).

Country	Titer	Spe	Total	
County	Titer	Coyote	Raccoon	Animals
Gray	1:256	2		2
Gray	1:2048	1		1
Potter	1:256	1		1
Potter	1:1024	1		1
Potter	>1:4096	1		1
Val Verde	1:64		1	1
Tot	al	6	1	7

Table 1. Samples with a Plague Titer of 1:32 or Greater, 1999

Plague Surveillance in Texas, 1999

The geographic distribution of positive samples and samples collected is illustrated in Figure 1.

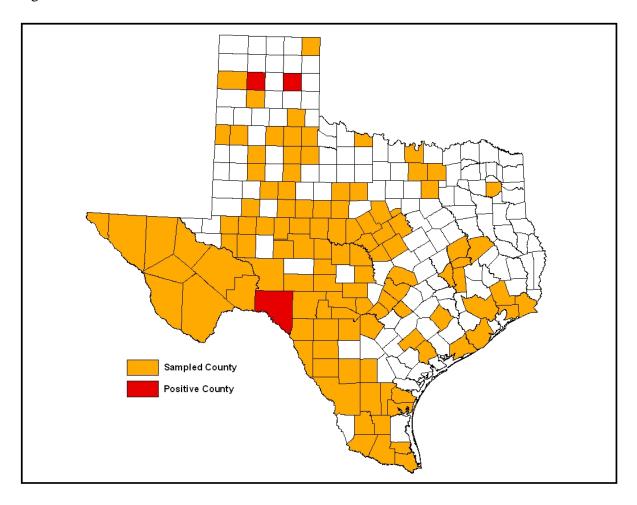


Figure 1. Texas Counties Sampled for Plague, 1999

Figure 2 compares the percent positive results from 1999 to those from recent previous years. The 1999 results continue to indicate a period of low plague activity in Texas.

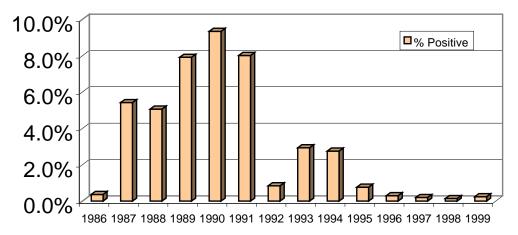


Figure 2. Percent of Surveillance Samples Positive for Plague, 1986-1999

The historic distribution of plague surveillance in Texas is shown in Figure 3. While plague is considered endemic in far west Texas, the surveillance results show that there may be naturally occurring risk in all but the extreme eastern part of the state.

By using educational materials, news releases, public access website, and conference presentations, TDH personnel keep veterinarians, physicians, and the general public aware of the plague risk in Texas. Even areas with historically low plague activity may have infections in hunters or campers who visit plague areas or in pets and wildlife transported from those areas. There is also a risk that new infestations may be established by moving animals across the state.

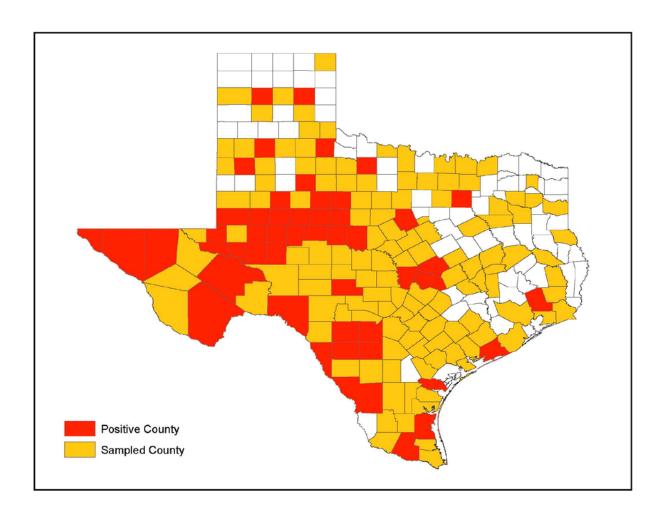


Figure 3. Texas Counties Sampled for Plague, 1976-1999

On the following pages, Table 2 shows the complete county listing, by species, of samples that tested negative for plague at a titer of less than 1:32.

						Tabi	le 2.	Negativ	ve Pi	lague	Sam	ples b	y Count	y and S	pecies, 19	99						
County	Aoudad	Armadillo	Axis Deer	Badger	Black Rat	Bobcat	Cat	Coyote	Dog	Fox, Gray		Hog, Feral	Javelina	Mt Lion	Opossum	Porcupine	Prairie Dog	Raccoon	Ringtail	Skunk	Unknown	Total
Bailey	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Bandera	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	3
Bexar	0	0	0	0	0	0	52	8	0	2	0	1	0	0	54	1	0	17	0	104	1	240
Borden	0	0	0	0	0	10	0	83	0	3	2	7	0	0	0	0	0	5	0	0	0	110
Bosque	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Brazoria	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Brazos	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	8	0	2	0	13
Brewster	0	0	0	0	0	2	0	5	0	25	0	0	1	1	0	0	0	0	0	0	0	34
Brooks	0	0	3	2	0	0	0	17	0	2	0	0	0	0	2	0	0	6	0	1	0	33
Brown	0	0	0	0	0	1	0	1	0	7	4	0	0	0	0	0	0	2	0	0	0	15
Caldwell	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Callahan	0	0	0	0	0	0	5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Cameron	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Chambers	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Coke	0	0	0	0	0	4	0	5	0	9	1	0	0	0	0	0	0	5	1	0	0	25
Coleman	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	4
Collin	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Colorado	0	0	0	1	0	4	0	38	0	0	0	0	0	0	0	0	0	44	0	32	0	119
Comal	0	0	0	0	0	0	0	22	0	1	0	0	0	0	0	0	0	1	0	0	0	24
Comanche	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	36
Concho	0	0	0	0	0	1	0	7	0	0	0	3	0	0	0	0	0	0	0	0	0	11
Cooke	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Coryell	0	0	0	0	0	0	0	43	0	9	0	22	0	0	2	0	0	2	0	1	0	79
Cottle	0	0	0	0	0	0	0	4	0	0	0	11	0	0	0	0	0	4	0	0	0	19

Table 2. Negative Plague Samples by County and Species, 1999 County Aoudad Armadillo Axis Badger Black Bobcat Cat Coyote Dog Fox, Fox, Hog, Javelina Mt Lion Opossum Porcupine Prairie Raccoon Ringtail Skunk Unknown To																						
County	Aoudad	Armadillo	Axis Deer	Badger	Black Rat	Bobcat	Cat	Coyote	Dog			Hog, Feral	Javelina	Mt Lion	Opossum	Porcupine	Prairie Dog	Raccoon	Ringtail	Skunk	Unknown	Total
Crane	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Crockett	0	0	0	1	0	6	0	1	0	3	4	0	0	0	0	0	0	0	0	0	0	15
Culberson	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Dallas	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	72	0	0	0	76
De Witt	0	0	0	0	0	1	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Denton	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Dickens	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	4
Dimmit	0	0	0	0	0	2	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Duval	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Ector	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Edwards	0	0	0	0	0	27	0	3	0	16	1	87	0	0	2	0	0	47	1	4	0	188
El Paso	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Erath	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4
Floyd	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Gillespie	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	1	0	0	0	9
Glasscock	0	0	0	0	0	7	0	21	0	9	19	0	0	0	0	0	0	1	0	0	0	57
Gray	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Grimes	0	0	0	0	0	2	0	4	0	0	0	1	0	0	2	0	0	3	0	0	0	12
Hall	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hamilton	0	0	0	0	0	1	0	13	0	0	0	0	0	0	0	0	0	1	0	0	0	15
Harris	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Hays	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	4
Hidalgo	0	0	0	0	0	3	53	74	0	0	0	0	0	0	8	0	0	7	0	1	0	146
Houston	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Hudspeth	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Irion	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Jeff Davis	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10

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County	Aoudad	Armadillo	Axis Deer	Badger	Black Rat	Bobcat	Cat	Coyote	Dog			Hog, Feral	Javelina	Mt Lion	Opossum	Porcupine	Prairie Dog	Raccoon	Ringtail	Skunk	Unknown	Total
Jefferson	0	0	0	0	0	0	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	49
Jim Hogg	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	1	0	0	0	39
Jim Wells	0	0	0	0	0	4	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Kendall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Kent	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Kerr	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	2	0	0	0	5
Kimble	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
King	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Kinney	1	0	0	0	0	16	1	26	0	23	0	6	0	0	2	0	0	136	0	2	1	214
Kleberg	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	0	0	0	0	120
La Salle	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Lamb	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lampasas	0	0	0	0	0	0	0	3	0	0	1	2	0	0	0	0	0	2	0	0	0	8
Leon	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Liberty	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lipscomb	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Llano	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	3
Lubbock	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lynn	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Madison	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Martin	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Matagorda	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
Maverick	0	0	0	1	0	3	0	13	0	0	0	0	0	1	0	0	0	2	0	0	0	20
McCulloch	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
McMullen	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Medina	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Menard	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5

Table 2. Negative Plague Samples by County and Species, 1999																						
County	Aoudad	Armadillo	Axis Deer	Badger	Black Rat	Bobcat	Cat	Coyote	Dog			Hog, Feral	Javelina	Mt Lion	Opossum	Porcupine	Prairie Dog	Raccoon	Ringtail	Skunk	Unknown	Total
Midland	0	0	0	0	0	0	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	7
Mills	0	0	0	0	0	1	0	11	0	0	1	0	0	0	0	0	0	0	0	0	0	13
Mitchell	0	0	0	0	0	2	0	28	0	3	0	1	0	0	0	0	0	0	0	0	0	34
Motley	0	0	0	0	0	2	0	93	0	0	0	24	0	0	0	0	0	0	0	0	0	119
Nolan	0	0	0	0	0	1	0	7	0	4	0	0	0	0	0	0	0	2	0	0	0	14
Nueces	0	0	0	0	0	0	57	0	0	0	0	0	0	0	8	0	0	6	0	1	0	72
Oldham	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Pecos	0	0	0	0	0	23	0	53	0	35	1	2	0	0	0	0	0	4	0	6	0	124
Potter	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	3
Presidio	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Randall	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Real	0	0	0	0	0	9	0	9	0	6	0	44	0	0	0	0	0	10	0	0	0	78
Reeves	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Runnels	0	0	0	0	0	1	0	5	0	2	2	0	0	0	0	0	0	0	0	0	0	10
San Saba	0	0	0	0	0	2	0	8	0	11	1	16	0	0	0	0	0	9	1	0	0	48
Scurry	0	0	0	0	0	2	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Shackelford	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Starr	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Stephens	0	0	0	0	0	0	0	165	0	0	0	0	0	0	0	0	0	0	0	0	0	165
Sterling	0	0	0	1	0	11	0	16	0	9	6	0	0	0	0	0	0	8	0	0	0	51
Sutton	0	0	0	0	0	11	0	0	0	11	1	24	0	0	0	0	0	2	0	0	0	49
Taylor	0	0	0	0	0	1	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Terrell	0	0	0	0	0	34	0	3	0	20	0	0	0	3	0	0	0	12	0	0	0	72
Tom Green	0	0	0	0	0	21	0	3	0	22	2	0	0	0	0	0	0	0	0	0	0	48
Travis	0	9	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	5	0	2	0	22
Upshur	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Upton	0	0	0	0	0	10	0	23	0	7	9	0	0	0	0	0	0	0	0	0	0	49

Plague Surveillance in Texas, 1999

	Table 2. Negative Plague Samples by County and Species, 1999																					
County	Aoudad	Armadillo	Axis Deer		Black Rat	Bobcat	Cat	Coyote	Dog	Fox, Gray	Fox, Red	Hog, Feral	Javelina	Mt Lion	Opossum	Porcupine	Prairie Dog	Raccoon	Ringtail	Skunk	Unknown	Total
Uvalde	0	0	0	0	0	3	0	19	0	3	0	0	0	0	0	0	0	0	0	0	0	25
Val Verde	0	0	0	2	0	83	4	4	0	72	0	3	0	0	1	0	0	142	0	0	0	311
Victoria	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Webb	0	0	0	1	0	3	0	204	1	0	0	2	0	0	0	0	0	1	0	0	0	212
Wichita	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Willacy	0	0	0	0	0	0	0	7	32	0	0	0	0	0	0	0	0	0	0	0	0	39
Williamson	0	0	0	0	0	0	0	5	0	0	0	6	0	0	0	0	0	0	0	0	0	11
Zavala	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
-	2	10	3	9	3	319	210	1627	33	326	56	267	1	6	82	1	1	578	3	156	2	3695