

Region 8 Zoonosis Control Newsletter

Public Health Region 8 | Zoonosis Control
Texas Department of State Health Services
[Region 8 - Zoonosis Control](#) | Region8.Zoonosis@dshs.texas.gov

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Hot Topics

By: Amanda Kieffer

Welcome to the latest edition of the Region 8 Zoonosis Newsletter! As summer heats up, it's the perfect time to revisit some crucial public health topics. In this issue, we will focus on mosquito-borne diseases, with a special highlight on dengue. We will also provide an overview of safe snake handling practices and introduce you to some of our native Texas snakes. Don't miss our mid-year rabies review and a comprehensive look at rabies biologicals. With the rising temperatures, remember to ensure you and the animals in your care stay well-hydrated and cool. Stay cool, Region 8!



Zoonosis News

Avian Influenza A(H5N1) Reported in Texas Dairy Cattle

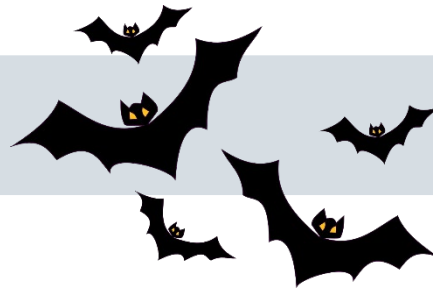
In March 2024, the first cases of highly pathogenic avian influenza (HPAI) H5N1 in dairy cattle were identified in the Texas Panhandle. In April, DSHS reported the first human case of H5N1 flu linked to an exposure to cattle. DSHS is working with the Texas Animal Health Commission (TAHC), Centers for Disease Control & Prevention (CDC) and other state and federal health agencies to investigate both human and animal cases of avian influenza. People who work directly with animals (particularly poultry and dairy cattle) should wear personal protective equipment (PPE) to prevent exposure. The general risk to the public is low and the commercial milk supply is considered safe.

For more information, visit:

<https://www.tahc.texas.gov/emergency/avianinfluenza.html>

<https://www.dshs.texas.gov/2024-avian-influenza-ah5n1-dairy-cattle>





Rabies Update

By: Jon Stewart

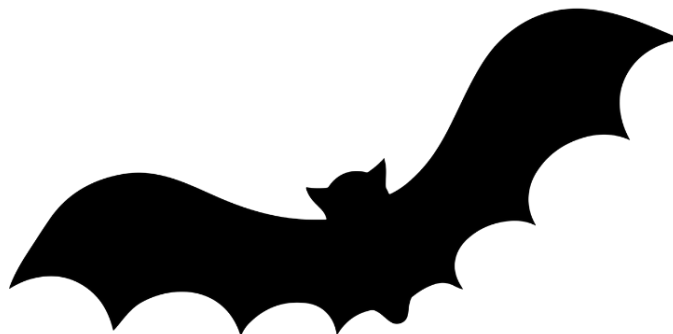
Rabies Update: January – July 2024

Between January and July of 2024, there have been twenty bats (37%) & twenty skunks (37%) that make up a total of 74% of the positive rabies reports, followed by eleven foxes (20.4%), two raccoons (3.7%), and one cat (1.9%).

2024 Rabies Cases in Animals, Region 8

January 1, 2024 – July 30, 2024

<i>County</i>	Bat	Cat	Dog	Fox	Raccoon	Skunk	Other	All
Bexar	8							8
Comal	3	1		3		2		9
Gillespie	1					1		2
Gonzales						2		2
Guadalupe	5							5
Kendall				5		1		6
Kerr				2	2	7		11
Lavaca						2		2
Medina	1							1
Uvalde	1							1
Victoria	1			1		5		7
Total	20	1	0	11	2	20	0	54

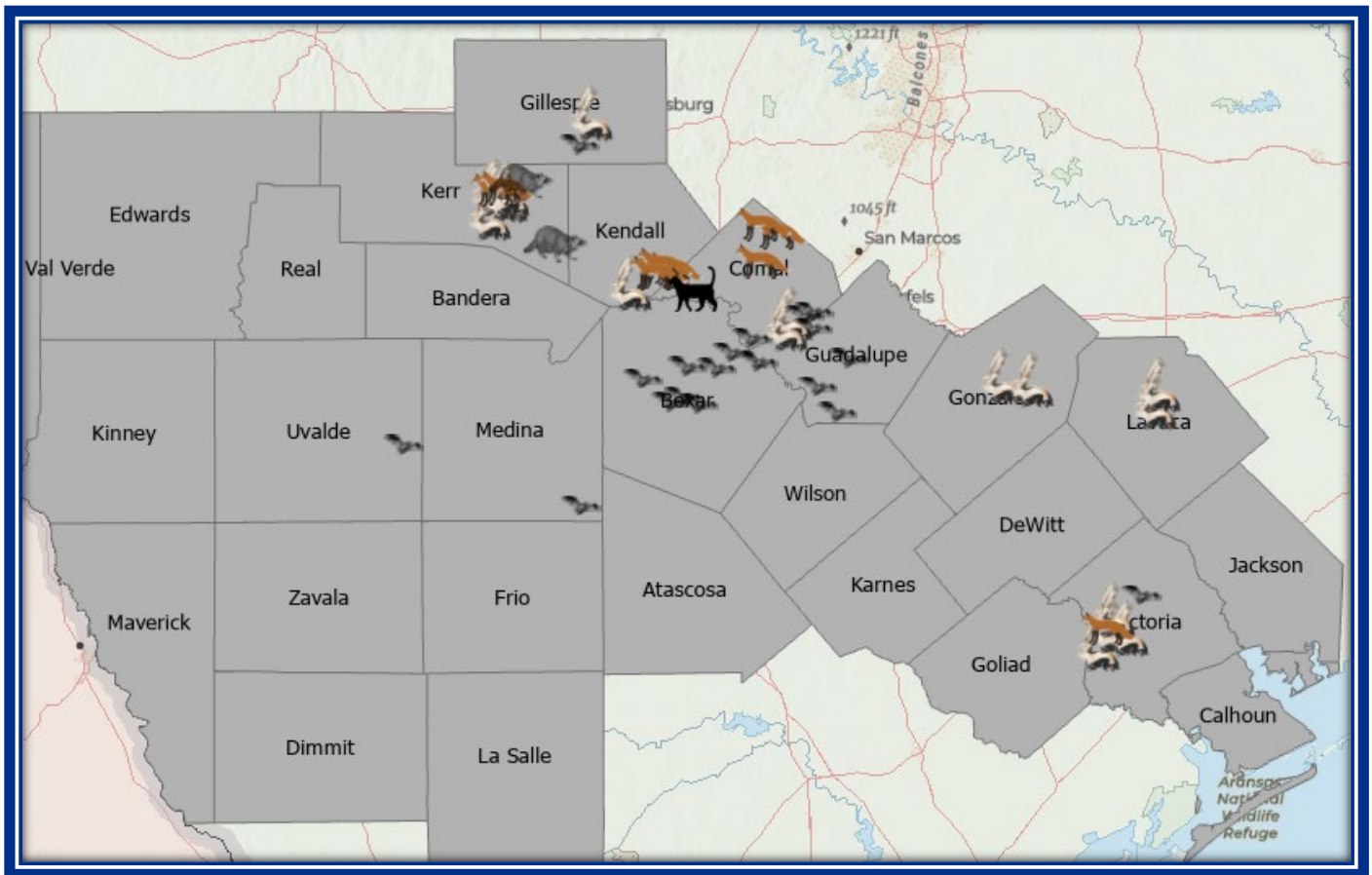




Rabies Update Map

By: Jon Stewart

Map of Positive Animal Rabies Cases, Region 8 January 1, 2024 – July 30, 2024



Human Notifiable Zoonoses

**Reportable Zoonotic Disease Cases in Humans, Region 8*
January 1, 2024 – June 30, 2024**

Condition	Confirmed	Probable	Suspect	All
Chagas	1		1	2
Dengue	4			4
Malaria ⁺	4			4
Typhus, flea-borne (<i>endemic, murine</i>)	1	12		13
Total	10	12	1	23

* DSHS case counts may differ from those reported by local jurisdictions as DSHS does not report cases until epidemiological investigations are complete. Totals listed do not include those investigated by other Local Health Departments (SAMHD).

+ Case counts from these conditions include travel-related infections acquired outside of Texas or outside of the United States by residents of PHR 8.





Snake Information & Safety Tips

By: Amanda Kieffer

Most snakes in Texas are not harmful to humans but learning to distinguish between venomous and non-venomous snakes will help prevent injury and help keep you, your pets and your clients safe. Read below to find out some important facts about native Texas snakes and handling tips!

Venomous Snakes in Texas

There are two main categories of venomous snakes in Texas: pit vipers and coral snakes. The three types of pit vipers in Texas are rattlesnakes, copperheads, and cottonmouths. Pit vipers are thick bodied snakes that have elliptical eye pupils and venom glands on the sides of their heads, giving their heads a triangular appearance. In contrast, coral snakes have round pupils, slender bodies, small heads, and alternating rings of red, yellow, and black coloring.

Rattlesnakes

There are 10 species of rattlesnakes in Texas. The Western diamondback is the most common venomous snake in Texas. Rattlesnakes have a distinctive rattle at the end of their tails, which they will vibrate when threatened. Different rattlesnake species can be found throughout Texas, and while most prefer open, rocky areas, they can also be found in a variety of other habitats.



Copperhead Snakes

There are three subspecies of copperheads in Texas and all can be identified by the alternating light and dark reddish-brown bands around their body. They are a thick bodied snake that are quick to strike when bothered. They are most commonly found in rocky, hilly, or forested areas. They have a wide range throughout Texas, with the exception of the panhandle and far south.



Cottonmouth Snakes

The only species of cottonmouth in Texas is the Western Cottonmouth. Cottonmouth snakes, also known as water moccasins, are commonly found in and near water in east Texas, the Gulf Coast, and Hill Country. They have wide, thick bodies with a dark brown color pattern. They are generally not aggressive but when threatened, they will open their mouth to show the distinctive white interior (hence the name “cotton mouth”).



Coral Snakes

The Texas coral snake is found throughout most of the state except the panhandle and Trans-Pecos areas. While they are typically less aggressive than pit vipers, they have extremely potent venom. A common phrase used to distinguish them from the similarly colored milk snake is “red touch yellow, kill a fellow – red touch black, friend of Jack.” However, if you cannot remember the rhyme, do not take your chances with any snake that has these colors!



Proper Snake Handling Techniques

If you encounter a snake, you should take steps to avoid injury to yourself, pets or others. Remove any other animals or people from the area and contact animal control or law enforcement. If you are the one removing or handling the snake, follow these tips:

- Always remember: if you are not sure if a snake is venomous, treat it as if it is.
- Wear proper protective gear, especially gloves and boots/gaiters to prevent a strike through.
- Use extension of arms to distance yourself from the snake and your body (e.g., snake hook or tongs)
- Using your tools, pick up the snake from the middle of the body (do not pick up by the tail because this is painful for the snake and is more likely to result in a strike)
- Place the snake in a suitable container that can be sealed, such as a plastic construction bucket or cloth bag (like a pillowcase)
- Safely relocate the snake or report it to the proper agency.

What To Do If You Are Bitten

Do	Do Not
✓ Call 911 and seek medical attention ASAP	✘ Drive yourself to hospital (people with snake bites can become dizzy or pass out)
✓ Wash the bite with soap and water	✘ Apply a tourniquet (a tourniquet can cause more damage by concentrating the venom in one place)
✓ Lay or sit down in a comfortable position	✘ Apply ice to the wound (ice will constrict blood vessels causing venom to spread more rapidly to other areas of the body)
✓ Take a photograph of the snake to help medical providers determine antivenom needs	✘ Attempt to catch, kill or trap the snake. Even a decapitated snake head can still produce venom.
✓ Mark the edges of the bite wound and time of bite to help medical providers monitor swelling	✘ Suck out the venom (you can either cause the venom to spread to your mouth or cause more tissue damage. Commercial snake extractor pumps have also been shown to extract bodily fluid but not venom)

For More Information on Snake Handling Safety and Information:

Reece Hammock, Reptile Trainer: 832-471-9098 | reece@medicalreptileresponse.com

Texas Parks & Wildlife: tpwd.texas.gov/education/hunter-education/online-course/preparation-and-survival/snakes

Texas A&M AgriLife Extension: <https://texnat.tamu.edu/files/2019/02/2019-Frank-Snake-ID-WFSC-023.pdf>

National Institute for Occupational Safety & Health: <https://www.cdc.gov/niosh/topics/snakes/default.html>



Dengue

By: Jon Stewart

The global incidence of dengue in 2024 is the highest ever recorded. The Americas reported over 9.7 million dengue cases from January 1 to June 24, 2024, more than double the entire 2023 total (4.6 million). The total amount of cases in the United States (including territories) is 2,241 as of June 24, 2024. During that same period, Texas reported 10 dengue cases, which were all travel-associated, but there has been a small number of locally acquired dengue cases in southern Texas in recent years.

The Centers for Disease Control and Prevention (CDC) has alerted healthcare providers about an increased risk of dengue infections in the United States in 2024 due to the unprecedented number of cases reported globally and higher-than-expected cases among U.S. travelers to regions where dengue is endemic.

Dengue virus is transmitted by infected mosquitoes. About 25% of infections become symptomatic, with symptoms appearing 3-14 days after infection. These may include fever, nausea, vomiting, rash, muscle aches, joint pain, bone pain, eye pain and headaches. Most people recover within two weeks, but about 1 in 20 symptomatic individuals develop severe dengue hemorrhagic fever, which can be fatal if untreated.

The mosquitoes that transmit dengue are primarily *Aedes aegypti* or *Aedes albopictus* species. These mosquitoes breed in clean, stagnant water. Container management is a key technique for vector control efforts.



Aedes aegypti mosquito

Public Health Response

CDC activated an emergency response on April 8, 2024 to reduce dengue cases in the United States. Strategies include:

- Increased surveillance, laboratory capacity, and public education efforts.
- Alerting healthcare providers to maintain high suspicion for dengue, especially in travelers.
- Providing regular situational updates on reported dengue cases.

Mosquito Bite Prevention

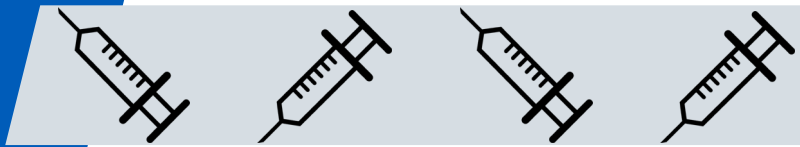
- Cover up with long-sleeved shirts and long pants.
- Wear [Environmental Protection Agency \(EPA\)-registered insect repellents](#). When used as directed, these insect repellents—including those that contain DEET—are proven safe and effective, even for pregnant and breastfeeding women.
- Remove standing water from potential breeding sites.

The best way to protect yourself and your family is to prevent mosquito breeding and bites. It's important to be vigilant against mosquitoes because they can bite day and night and live both indoors and outdoors.

For more information on mosquito surveillance in your region please contact:

Region8.Zoonosis@dshs.texas.gov

To learn more about the diseases spread by mosquitoes, visit our [Mosquito-borne Diseases page](#).



Rabies: When to get PEP?

By: Rachel Panneton

Rabies is commonly transmitted by a bite from a rabid animal, but you can also get rabies if the saliva or any central nervous system tissues (*brain or spinal cord*) from a rabid animal gets into your mucous membranes (*eyes, mouth, nose*) or any open wounds (*like a scratches or bites*) you might have. Thankfully a rabid animal’s stool, blood, urine, or skunk spray does ***not*** contain the rabies virus!

What to do for a Possible Rabies Exposure

The animal bite or scratch wound should be treated and receive proper wound care. **Immediate and thorough washing of all bite wounds and scratches with soap and water (and an iodine-based antiseptic, if available and the person is not allergic) is a critical measure for preventing rabies.**

To determine whether or not you should receive the post-exposure prophylaxis (PEP) treatment use the **Rabies Post-Exposure Prophylaxis (PEP) Decision Tree** (on the next page), based on the available information surrounding the exposure.

Texas state law requires that, all animal bites to humans must be reported to the local rabies control authority (LRCA), which may be animal control, the sheriff or another designated local authority. They can also help determine what you should do for treatment.

The Post-Exposure Prophylaxis (PEP) Treatment

The initial treatment consists of Human Rabies Immune Globulin (HRIG) given according to weight, and the first dose of rabies vaccine (day 0). Subsequent doses of PEP are to be administered by the primary care physician (PCP) or a physician who will monitor the client and complete the treatment on days 3, 7, and 14. Immune compromised individuals need an additional dose on day 28.

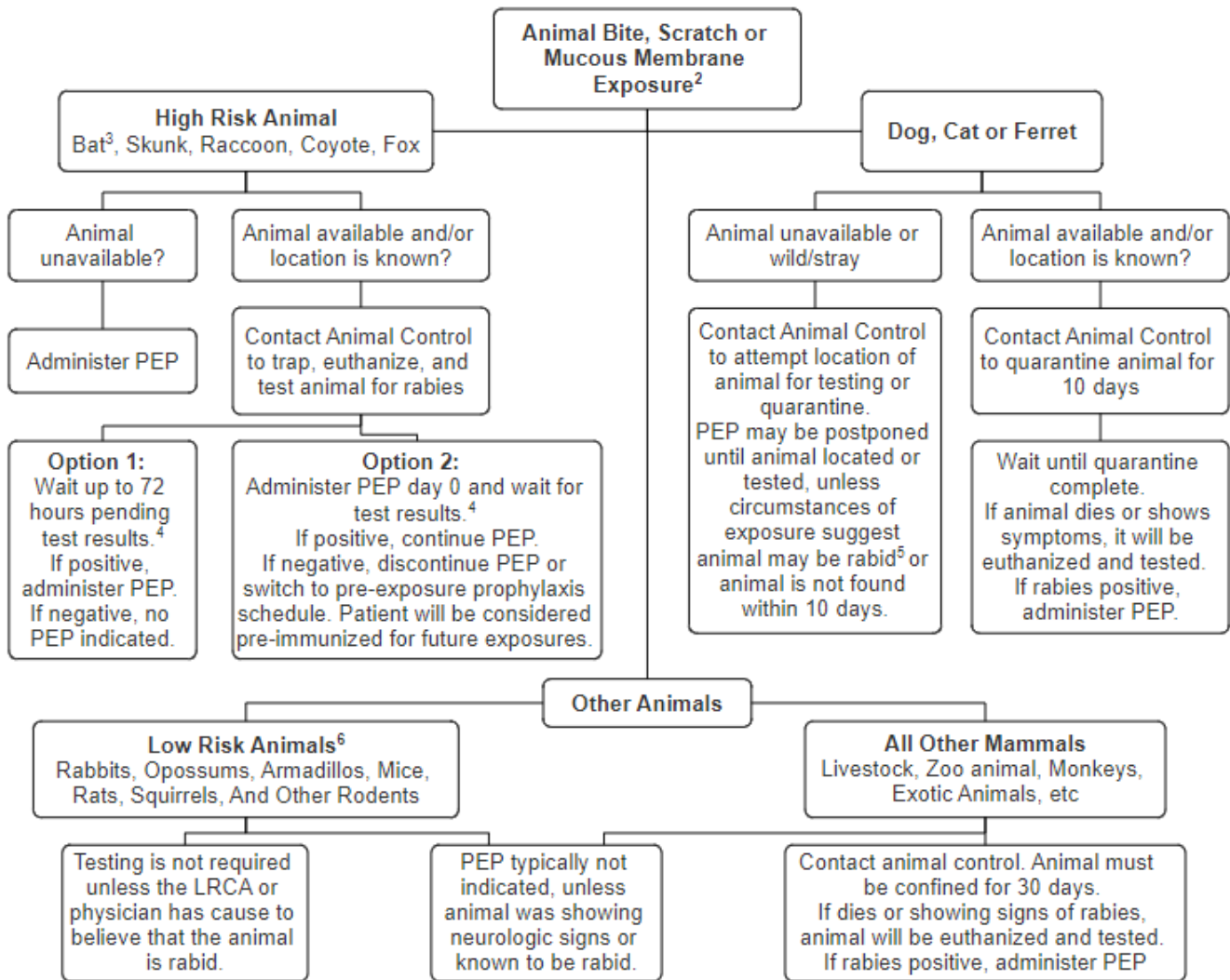
The combination of rabies immune globulin and rabies vaccine is recommended for an exposure, regardless of the time between exposure and treatment. **The sooner the treatment is started after the exposure, the more effective it is!** In most cases it is acceptable to delay PEP for up to 72 hours while awaiting rabies test results or making efforts to locate the biting animal for testing or quarantine; however, if the animal was displaying clinical signs of rabies, the exposed individual should begin treatment without awaiting test results (treatment can be discontinued if test results are negative).

Rabies PEP Schedule Table

Vaccination Status	Intervention & Regimen
Not Previously Rabies Vaccinated	HRIG is needed Rabies Vaccines on Days: 0, 3, 7, & 14 & 28*
Previously Rabies Vaccinated	No HRIG is needed Rabies Vaccines on Days: 0 & 3

**if immune compromised*

Rabies Post-Exposure Prophylaxis (PEP¹) Decision Tree



1. PEP = Administration of HRIG (Human Rabies Immunoglobulin) on Day 0, and Rabies Vaccine on Day 0, 3, 7, and 14 (+ day 28 if immune compromised)
2. Mucous membrane exposure should be considered if saliva or CNS tissue splashed into eyes, mouth, nose, or open wound.
3. Bat exposures include bite or scratch, bat with unattended child, sleeping patient waking up to bat in room, bat with inebriated or mentally handicapped patient
4. Most labs take 24-48 hours to release results. Okay to start PEP for high-risk exposures if level of concern is high (e.g. bats, unprovoked attack, neurologic animal)
5. Healthy, domestic dogs, cats, and ferrets rarely have rabies, even if vaccination history unknown or not current. If circumstances of exposure are suspect (e.g. neurologic animal, unprovoked attack, atypical behavior), notify Zoonosis control for risk assessment. PEP may be recommended in these circumstances.
6. Low risk animals rarely have rabies. Consult with Region 8 or local rabies control authority if circumstances of bite are unusual or animal suspected to be rabid

Still Unsure?

If you are still unsure on what to do or if you should receive rabies PEP or not, you can always call the Region 8 Zoonosis Control Team at 210-949-2121.

For More Rabies Information:

Rabies Prevention in Texas PDF: <https://www.dshs.texas.gov/sites/default/files/LIDS-IDPS-%20Diseases/Rabies-Prevention-in-Texas-052722.pdf>

Rabies | Texas DSHS: <https://www.dshs.texas.gov/notifiable-conditions/zoonosis-control/zoonosis-control-diseases-and-conditions/rabies>

City of San Antonio | Rabies: <https://www.sa.gov/Directory/Departments/SAMHD/Health-Professionals/Rabies>



Announcements

ACO Basic Course

October 23rd – 25th, 2024 | 9:00 – 4:00pm | San Antonio

The ACO Basic Course will meet the training requirements of HSC Chapter 829 and will include 12 hours of classroom instruction on the 1st and 2nd day with testing on the 3rd day.

To register contact Rachel Panneton at:

rachel.panneton@dshs.texas.gov / 210-774-1653



Future CE Course Topics

If you have any suggestions or requests for future CE Course topics, please let us know by emailing us at:

Region8.Zoonosis@dshs.texas.gov

For More ACO CE Course Information:

<https://www.dshs.texas.gov/notifiable-conditions/zoonosis-control/education/animal-control-officers/dshs-aco-training-course>



ACO Manual Online

The ACO Training Manual is available for **free** on the [DSHS website](#).

***Note:** Updates to the manual are posted and represented by dates in parenthesis beside each chapter.*

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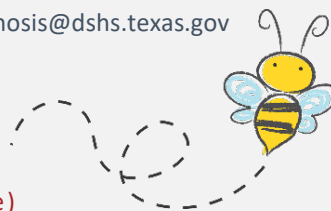
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7430 Louis Pasteur Drive
San Antonio, TX 78229

210-949-2000 (Main Office)

210-692-1457 (Fax)

210-949-2121 (24/7 Reporting Line)



TEXAS
Health and Human
Services

Texas Department of State
Health Services

Contact Us:

Amanda Kieffer

Zoonosis Control Veterinarian

O: 210-949-2048 C: 210-863-5713

Jon Stewart

Program Specialist

O: 210-949-2046 C: 210-517-8638

Rachel Panneton

Public Health & Prevention Specialist

O: 210-949-2165 C: 210-774-1653