

Landowner's Report

Acoustic Bat Monitoring Program

Hays County
Patsy Glenn Refuge
2026



THANK YOU!

With your support we have been able to start one of the largest state-wide citizen science projects in the united states

This information is being used to determine bat species richness in Texas on a large scale for the first time ever

While our research can not tell us how many bats there are in an area, it gives us important insight that can help with conservation and scientific efforts



The only way to 100% identify a bat is to either have one in our hands or a clear, very detailed photo

Our research is only based on audio recordings, and we have put standards in place to be able to say, with confidence, the following species were likely recorded at your property



Highly Likely Species Present



Hoary Bat

Lasiurus cinereus

Species of Greatest Conservation Need

- In addition to their usual echolocation calls, hoary bats produce short, quiet 'micro calls'
- Will sometimes fly and navigate without using echolocation
- Pups learn to fly in about 33 days
- Migratory species found statewide in Texas

Forages over the tree canopy, and often target dragonflies



Seminole Bat

Lasiurus seminolus

Unknown Conservation Status in Texas

- Distribution seems to be closely associated with distribution of Spanish moss, the clumps of which provide roosting sites
- Pups are fully furred and appear almost identical to their mothers by the time they are two weeks old
- Blue jays are suspected of preying on these bats in the spring when young are unable to fly

Forages over watercourses and clearings, generally at treetop level



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Evening Bat

Nycticeius humeralis

Unknown Conservation Status in Texas

- Pups are born pink and hairless with their eyes closed, yet are capable of flight within 20 days
- A colony of 300 Evening Bats was estimated to consume 6.3 million insects per summer, dining mainly on spotted cucumber beetles
- Their diet also consists of flying ants, spittle bugs, pomace flies, stinkbugs, and small moths

Forages over cornfields, open, marshy areas, along the edges of forests, above the canopy & below tree crown



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Mexican Free-tailed Bat

Tadarida brasiliensis

Species of Least Concern

- They can save Texas farmers roughly \$1.3 Billion in pest control methods by feeding on crop-eating moths
- It is estimated that house bats eat 6,000 to 18,000 metric tons of insects annually in Texas
- Bracken Cave in San Antonio is the largest bat colony AND the largest concentrations of mammals on Earth

Forages over wide open areas



Likely & Possible Species Present



Northern Yellow Bat

Lasiurus intermedius

Species of Greatest Conservation Need

- Diet consists of leafhoppers, damselflies, small flies, predaceous diving beetles, other beetles, and flying ants
- Semi-hibernators (periods of torpor) and emerge to feed on warm winter evenings
- In Texas, they are best known from coastal palm groves

Forages over open, grassy areas such as pastures, lake edges or golf courses & along forest edges



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Silver-haired Bat

Lasionycteris noctivagans

Species of Least Concern

- Mothers give birth to one or typically two young, called pups
- Known predators include skunks and great-horned owls
- It is estimated that these bats require densities of dead and dying trees
- Diets vary widely but chiefly on small, soft-bodied insects

Forages in or near coniferous and/or mixed deciduous forests & adjacent to ponds or other water bodies



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Cave Myotis

Myotis velifer

Species of Greatest Conservation Need

- Diet consists of a wide variety of insects including moths, weevils, antlions, small beetles and flying ants
- Very susceptible to human disturbance
- Bat-friendly gates can prevent human disturbance of roosting sites in caves and mines, but only when they're known to not share roost sites with other non-gate-tolerant species

Forages over pools of water and open tanks as well as staying close to vegetation 4-12m above the ground



Big Brown Bat

Eptesicus fuscus

Species of Greatest Conservation Need

- Insect-eaters who are vital players in pest control
- Big brown bats rank among America's most beneficial animals
- Generalists in their foraging behavior and habitat selections
 - They're not too picky when it comes to where to live & what to eat



Forages over agricultural and wooded areas

Southern Yellow Bat

Lasiurus ega

Threatened - Species of Greatest Conservation Need

- Insectivores
- Roosts primarily beneath the hanging dead fronds of palm trees year-round
- If you have palm trees, try not to remove the dead fronds, learn more about passive approach to maintaining your palm!

Foraging is not well documented



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