



TEXAS
NATURE
TRACKERS

Wildlife Diversity Program
4200 Smith School Road, Austin, Texas 78744
www.tpwd.state.tx.us/tracker

The Texas Nature Tracker

TEXAS
PARKS &
WILDLIFE

2008

Catching Up!

with

Marsha E. May, TNT Coordinator, TPWD

In the 2008 fiscal year, more than 600 Texas Nature Tracker citizen scientists accumulated close to 6,000 hours of volunteer time in 155 Texas counties. What an amazing accomplishment!

**Thank you all for your
dedication and hard work!**

Another Texas Nature Tracker opportunity currently is in the works and should be taking flight by spring 2009. This one will attract all you night owls!

Birds active during the evening hours often fly under our monitoring radar. Popular programs such as the Breeding Bird Survey and Christmas Bird Counts rarely capture data on these nighttime flyers. In 2007, the Center for Conservation Biology at the College of William and Mary in Virginia built the Nightjar Survey Network to begin collecting data on the population distribution of nightjars in the United States. Like Texas Nature Trackers, the Nightjar Survey Network relies on volunteers to collect data.

For several years, Lee Ann Linam, Nyta Hensley and I have presented a program at the Texas Master Naturalist Annual Meeting on Sounds of the Night, and this has been very popular. From that program came the idea for Texas Nightbird Watch. Using Texas

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Citizen Scientists and University Scientists Join Hands in Genetics Study

Lee Ann Linam, Texas Nature Tracker Biologist, TPWD

“Conservation Genetics of the Texas Horned Lizard, *Phrynosoma cornutum*”—on the surface, it’s a rather academic-sounding research project. In reality, this project, funded by Texas Horned Lizard Conservation License Plates (see page 15 for more information), is developing into a real partnership effort for horned lizard conservation across the state, as citizen scientists and landowners are stepping forward to assist scientists at Texas Christian University in learning about the genetic relationships of horned lizards in Texas.

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Lee Ann Linam and Vivian Dixon participate in the Rockdale training workshop.



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Catching up ...

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Amphibian Watch as a model, we thought that it would be supportive to incorporate the Center for Conservation Biology's nightjar survey into the nightbird monitoring packet. Texas Nightbird Watch will be a monitoring program for owls and nightjars. Some common nightjars are chuck-will's-widows, whip-poor-wills and common nighthawks. Watch for this new program!

Sixteen Texas Nature Tracker partners participated in one or both Texas Amphibian and Mussel Watch train-the-trainer workshops to date. These partnerships provide an effective way of spreading this wealth of information to your communities. Your efforts make Texas Amphibian and Mussel Watch available to more Texas citizens than ever before. For our partners out there, please let us know if there is anything that we can do to help. Our door is always open. **We thank you from the bottoms of our hearts!**

Texas Nature Tracker Partners:

- Rolling Plains Master Naturalist Chapter – Wichita Falls
- Capital Area Master Naturalist Chapter – Austin
- Gulf Coast Master Naturalist Chapter – Houston
- Rio Grande Valley Master Naturalist Chapter – Brownsville
- Big Country Master Naturalist Chapter – Abilene
- North Texas Master Naturalist Chapter – Dallas
- Mineola Nature Preserve – Mineola
- Forest Glenn Springs Preserve – Rosebud
- Rio Brazos Master Naturalist Chapter – Granbury
- Heart of Texas Master Naturalist Chapter – Waco
- Brazos Valley Texas Master Naturalist Chapter – Bryan
- Cibolo Nature Center – Boerne
- Big Thicket National Park – Saratoga
- Dallas Zoo – Dallas
- Lost Pines Master Naturalist Chapter – Bastrop
- Trinity River Audubon Center – Dallas

If you know of a nature center or Master Naturalist chapter that is interested in becoming a Texas Nature Tracker partner, please contact: marsha.may@tpwd.state.tx.us

Keep that data coming!



PHOTO: © MARSHA MAY



Citizen Scientists and University Scientists ...

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The project, proposed by Dean Williams and Amanda Hale at TCU, has as its major objectives to “collect data on population structure, dispersal patterns, and effective population sizes.” It is hoped that the findings of the study may guide conservation groups and agencies in making appropriate decisions for conservation and recovery of Texas horned lizard populations in the future.

One of the major challenges for such a project, however, has been locating and sampling horned lizards across the state, especially where horned lizard populations are small and scattered. That’s where the “citizen scientists” come in. Texas Parks and Wildlife Department is working with local communities and citizen groups to train volunteers to assist in locating and collecting DNA samples from horned lizards.

One successful training was recently held in Rockdale, Texas, a community of about 6,000 people and at least several dozen horned lizards. Rockdale, located in Texas’s Post Oak Savannah ecoregion, is home to one of the few known horned lizard populations in the eastern half of the state. On August 12, the El Camino Real Chapter of Texas Master Naturalists and the City of Rockdale, with support from the Rockdale Chamber of

Commerce, hosted the horned lizard research and conservation workshop. Over 60 people attended the workshop, including city employees who wanted more information on conservation of horned lizards, Master Naturalists who were eager to be a part of a real research project, local landowners who simply wanted to know more about horned lizards, and interested guests who drove as long as three hours to participate. Attendees also enjoyed the chance to look for horned lizards in neighborhoods and cemeteries at the invitation of local landowners. Although no horned lizards were found in those outings, local volunteers have since found them and been able to obtain some DNA samples.

Volunteers in other parts of the state are getting in on the action as well. A large group of Texas Master Naturalists from the Llano Estacado Chapter were trained at the Sibley Nature Center in Midland, and several members of herpetological societies around the state have stepped forward to help. TPWD will continue to offer training for volunteers (who must be placed on a scientific permit in order to handle horned lizards) next spring. Anyone interested in organizing and hosting a training workshop in their area is encouraged to contact Lee Ann Linam at (512) 389-8111 or leeann.linam@tpwd.state.tx.us.

Hidden Treasures of Nature Tracker

Lila Arnold, President, Rolling Plains Chapter, Texas Master Naturalist

The Rolling Plains Chapter adopted a small borrow pit lake and nearby drainage canal by Lake Wichita to monitor for the 2007-2008 Amphibian Watch. We conducted several watches at this site throughout the summer months. But rather than expound on the results of our endeavor, I wanted to share one particular night a group of our chapter members visited this site.

On this evening, I had my nephew, Sam Smith, in town visiting with me. Our chapter advisor, Mark Howell, had brought along his son, Andrew Howell. The boys, Sam and Andrew, are 8 and 5 years of age, respectively. Sam is a city boy, born and raised in the Metroplex. Andrew was born with

a rod and reel in his hands. Two boys, whose experiences with nature are drawn from the opposite ends of the spectrum, found a common bond with flashlights. That is correct ... not a Game Boy! No headphones! No electrical cords! No strange alien sounds emitted from small glowing hand-held games! That night their common bond was two ordinary flashlights and nature.

As the evening progressed, at times the soft giggles made it difficult to listen for the chorus of frogs in the darkness. But, I must admit, the sound of giggling boys was music to my ears. Of course the giggles stopped when a mysterious Great Horned Owl hooted from atop a tree and a monstrous

splash suddenly broke the surface of the water. The boys froze, but only for a moment, then both again giggled at their own fearful apprehension of the darkness. As we were about to leave, much to the boys’ dismay, the fireflies appeared. What a marvelous way to top off an evening filled with education and fun!

I believe that the future generation of Stewards of Nature will be the Sams and Andrews, the Addisons, and Hannahs of the world. As Master Naturalists, one of our goals should be to help stimulate, educate, and invigorate our children, grandchildren, nieces, and nephews ... the future generation of naturalists.

“It is not half so important to know as to feel when introducing a young child to the natural world.”

—Rachel Carson



Capital Area Master Naturalist Texas Amphibian Watch Partnership

AMPHIBIAN MONITORING AT RIATA POND

Kathleen McCormack, Capital Area Master Naturalist

Several Capital Area Master Naturalists were engaged in TPWD's Texas Amphibian Watch (TAW) Adopt-a-Frog-Pond program at Riata Pond in North Austin in 2008. Generally on the second Saturday night of every month, up to five CAMNers have gathered at dusk to listen for frog and toad calls. The maximum round-trip miles and travel hours for these volunteers in any month was 130 and four, respectively.

Six frog and toad species have been documented at Riata Pond so far – Rio Grande leopard frog (*Rana berlandieri*), bullfrog (*Rana catesbeiana*), Gulf Coast toad (*Bufo nebulifer*), green tree frog (*Hyla cinerea*), gray tree frog (*Hyla chrysocelus*), and cliff chirping frog (*Syrrophus marnockii*). Noticeably absent at Riata Pond, however, has been the northern cricket frog (*Acris crepitans*). Central Texas has been in a drought for over a year, but this man-made stormwater retention pond has not gone dry; so although we haven't had high Call Index Values, we've been surprised and pleased with the level of anuran activity. Since our monitoring location is in a semi-urban setting, we've also had the opportunity, on several occasions, to be TAW ambassadors to the folks using the hike-and-bike path surrounding the pond.

Our group also monitored a man-made, circulating, three-tier, in-ground water feature at a nearby homeowner property one night in May 2008 and documented one additional species, Great Plains narrowmouth toad (*Gastrophryne olivacea*). We plan to continue this monitoring program at a different wetland next year, but Riata Pond has been a good learning experience for everyone involved.

AMPHIBIAN MONITORING AT HORNSBY BEND

Julia Osgood, Capital Area Master Naturalist

Since June I have led groups of Capital Area Master Naturalists to conduct amphibian monitoring at the pond off Platt Lane at Hornsby Bend. Prior to that time Roger Myers led groups there. He sent his results to Lee Ann Linam, TNT biologist, before he moved away. The pond is well away from human activity.

In these last few months we have heard the following species: Rio Grande leopard frog (*Rana berlandieri*), Gulf Coast toad (*Bufo nebulifer*), green tree frog (*Hyla cinerea*), and northern cricket frog (*Acris crepitans*). The green tree frogs are almost deafening, while the Rio Grande leopard frogs usually give us a Call Index Value of 1-2. The cricket frogs stop and start in loud bursts, rising to a crescendo and then falling silent, repeating this pattern over the hour that we monitor. We haven't heard the Gulf Coast toads in the last three months, but they were in abundance in the spring with a Call Index Value of 3.





Horned Lizard Watchers Look Closely in 2007

Lee Ann Johnson Linam, Texas Nature Tracker Biologist, TPWD

Awet spring and summer in 2007 was great for regular toads but produced mixed results for the state’s horned toad watchers. Some volunteers reported increased sightings, while others reported that the lush vegetation made spotting horned lizards difficult. Horned lizards were reported from many locations in West Texas, and some optimism continued in the DFW metroplex and the Post Oak Savannah ecoregion.

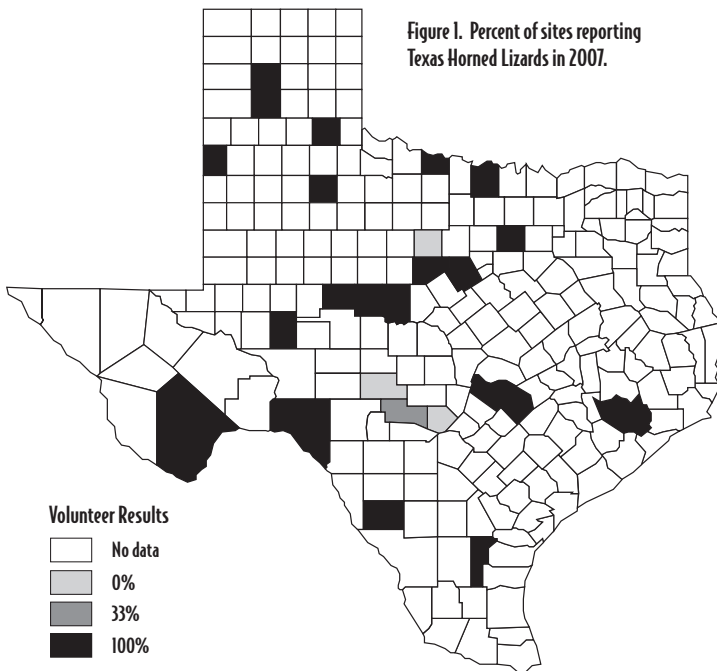
Data came in from 27 counties, bringing the total number of counties participating to 167. (We need those other 87 counties to speak up!) Watchers in northwest Texas reported increased success in 2007, while watchers in the Cross Timbers thought that horned lizards weren’t as evident as in previous years. Kerr County produced its first positive sighting since the watch program began (an incidental report forwarded by one of our volunteers), Bastrop County produced another positive sighting in the deep sand habitats of the Post Oak belt, and positive sightings were received from Tarrant County in the shadow of Fort Worth. A photo was taken of a horned lizard in a residential area in south Austin (Travis County); however, several follow-up surveys failed to produce another sighting. Another unusual sighting was made at a residence in Katy (Harris County), but no additional sightings were made. Complete results for 2007 are presented in Figure 1.

About two-thirds of the volunteers saw Texas horned lizards in 2007. Monitoring materials asked horned lizard watchers to be on the lookout for THL scat (or droppings), and **Texas State Technical College** volunteers in Eastland County were able to confirm the presence of horned lizards in that county using scat. Most lizards sighted were 3 to 5 inches in total length.

The greatest number of sightings occurred in June, July and August. Sightings were down in May, perhaps due to cool, wet weather, and were up in August, thanks, in large part, to a horned lizard study being conducted on Matagorda Island National Wildlife Refuge in Calhoun County. Juvenile horned lizards were reported from Wichita County in June, Potter County in August and September, from Dickens County in September, and from Coke County in October. Most sightings occurred when temperatures were in the 80s.

Data on ant species were provided for 15 sites and transects. Of the eight sites where horned lizards were seen, native ants were reported present and red imported fire ants were reported absent at seven sites. Of the seven sites where horned lizards were not seen, both native ants and red imported fire ants were reported at all sites.

Finally, in 2007 I completed a 10-year summary of Texas Horned Lizard Watch. Our volunteers have put together a wonderful data set regarding horned lizards over the first decade of the monitoring project. For more detailed information, including many colorful charts of data, please visit www.tpwd.state.tx.us/hornytoads/ and click on 10-year summary report.



In 2007 a total of 19 volunteers submitted data sheets, while an additional 14 reports were received from other sources. THLW now has had 191 people formally participate. During 2007 **Brenda Lyman** submitted data for the fifth year, an accomplishment which will be recognized with a pewter horned lizard pin designed by Tom McCain. Two participants conducted transects in 2005, 15 participants adopted sites, and five participants served as horned lizard spotters.

PHOTO: ©DARYL CAGLE



PHOTO: ©RODOLFO URBY



Remember to update our mailing address on your forms—please mail all future data reports to:

Texas Nature Trackers – Texas Parks and Wildlife Dept.
4200 Smith School Rd., Austin, TX 78744
Attn: Texas Horned Lizard Watch



Buff-bellied Hummingbird

PHOTO: ©MARK KLYM

Here Come the Hummingbirds

Mark Klym, Coordinator of the Texas Hummingbird Roundup, TPWD

Well, the hummingbird migration is passed and it is time to be cleaning those feeders, planting perennial shrubs and bushes and getting ready for the spring return. Those of you fortunate enough to have hummingbirds still around should keep your feeders active – these birds may be around all winter, and feeders or an active food source are critical.

The 2008 season was a mixed picture. Some people reported good hummingbird numbers while others, especially those in areas that had huge numbers in 2007, reported very low hummingbird counts. This is typical of population counts with any species, and we are seeing no reason for alarm in these populations.

The 2007 report is online at www.tpwd.state.tx.us/learning/texas_nature_trackers/hummingbird_roundup/hummer_pubs/. This publication is sent in a hard copy to people who purchase the survey forms and those who return information. You can also download the survey at www.tpwd.state.tx.us/hummingbirds

In 2007, all 18 species of hummingbird were reported somewhere in the state, including some very surprising reports like a Christmas visit from Violet-crowned Hummingbirds in Lubbock. Violet-crowned Hummingbirds were also reported in Brewster and Jeff

Davis counties. White-eared Hummingbirds were found in Jeff Davis and Uvalde counties. Broad-billed Hummingbirds were seen in Brewster, Jeff Davis and Kleberg counties. Berylline Hummingbird was again seen in Jeff Davis County while Costa's Hummingbird was reported in Brewster and Parker counties. In the Valley, Green-breasted Mango was reported in Hidalgo County. Central Texas saw visits from Green Violet-ears in Bastrop, Kendall and Wharton counties. Green-violet ear also showed up in Cameron County. All regions except East Texas reported some rare hummingbird sightings. At writing, many of these species had been seen in 2008, though I still had no reports of Berylline or Costa's.

We are constantly making changes on the Hummingbird Roundup Web site. Check it out at www.tpwd.state.tx.us/hummingbirds

Enjoy the hummingbirds.

Desperately Seeking ... Missing Volunteers

Lee Ann Johnson Linam, Texas Nature Tracker Biologist, TPWD

Since 1999, Texas Parks and Wildlife Department biologists have trained approximately 660 volunteers at Texas Amphibian Watch (TAW) workshops. One of the benefits of attending a TAW workshop is having your name placed on our scientific permit so that you can capture and examine amphibians.

Our TAW scientific permit was recently renewed; however, we have not heard from many of our trainees in years. If you have not received a renewed permit, that means that several years have elapsed since you were trained or sent in data.

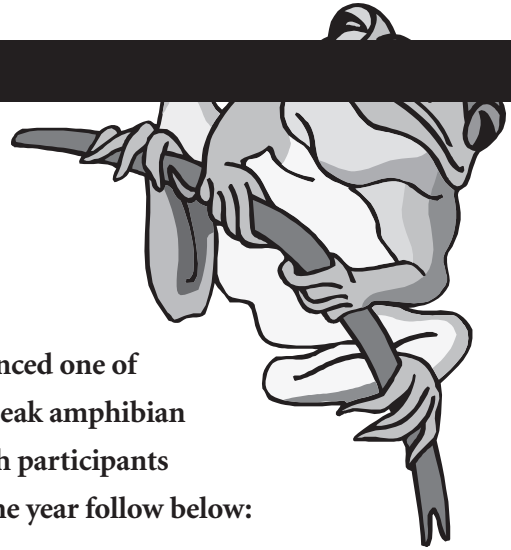
If you have attended a TAW workshop but did not receive a renewed permit, and IF you are re-inspired to try to participate in Texas Amphibian Watch, please drop me a line at leeann.linam@tpwd.state.tx.us or call (512) 389-8111 to let me know you would like to continue to be listed as one of our subpermittees.

Don't let all the fun pass you by!



Frogs Frolick in 2007!

Lee Ann Johnson Linam, Texas Nature Tracker Biologist, TPWD



2007 was a good year to be a frog in Texas. Many parts of Texas experienced one of the highest rainfall years on record, and much of that rain fell during peak amphibian breeding seasons in spring and summer. Active Texas Amphibian Watch participants were rewarded with a fruitful monitoring season. Some highlights of the year follow below:

- Data forms were submitted to TAW by 25 volunteers, bringing the total number of participants to 70.
- Data were submitted from 26 counties. Hamilton County submitted data for the first time, raising the total counties participating to 87.
- Data were analyzed from 29 TAW Adopt-a-Frog Pond sites. Sixteen sites were new, raising the total number of sites monitored to 127.
- Data were collected at an additional 11 sites using automated frog-loggers.
- Data were collected on five roadside transects, each representing 10 sampling points.
- Data were also obtained from five Frogwatch USA sites.
- Data were submitted on 28 frog and toad species. Texas Amphibian Watch's dataset now has data on all of the anuran species in the state, with the exception of only the spotted chirping frog (*Syrrophus guttilatus*).
- Data were also submitted for one salamander species, the state-threatened black-spotted newt (*Notophthalmus meridionalis*).

The most widely-reported species were similar to previous years:

- Northern cricket frog (*Acris crepitans*) – 14 counties
- Gulf Coast toad (*Ollotis nebulifer*) – 13 counties
- Southern leopard frog (*Lithobates sphenoccephalus*) – 12 counties
- American bullfrog (*Lithobates catesbeianus*) – 12 counties
- Green tree frog (*Hyla cinerea*) – 12 counties

Southeast and East Texas counties produced the highest species totals, but Central Texas counties produced the greatest volunteer effort. Hays County in Central Texas had five sites monitored, one transect run, and one site monitored using a frog-logger. Travis County had six sites monitored, while Brazos County had five sites monitored. The leaders in species totals were as follows:

- Harris County – 14 species
- Montgomery County – 13 species
- Brazoria County – 12 species
- Houston County – 12 species

WORKSHOPS

Texas Amphibian Watch staff taught workshops in Bryan, Houston and Wichita Falls, recruiting the **Brazos Valley Chapter of Texas Master Naturalists** (TMN) as a new partner in Texas Amphibian Watch. In response, the Brazos Valley Chapter, under the leadership of **Mary Ann Cusimano**, taught a workshop and submitted data on five sites! Other TMN partners were also very active in 2007. The **North Texas Chapter**, under the leadership of **Barbara Turner**, monitored a site and offered several outings. The **Capital Area Chapter**, under the leadership of **Roger Myers**, taught a workshop and monitored three sites. The **Gulf Coast Chapter**, under the leadership of **Scott Kiester**, continued to be very active, offering several workshops, monitoring a site and running one transect (Scott was rewarded with hearing 10 species on one night during a transect run!). The **Cibolo Nature Center**, under the leadership of **Mary Gomillion**, also partnered with TAW in 2007 by monitoring three sites and preparing to teach a 2008 workshop.

THANK YOU, VOLUNTEERS

Several volunteers made noteworthy contributions in 2007. **David Martin** and **April Proudfit** contributed data for the fifth year, joining six other volunteers—**Collette Lassberg**, **Betty Watkins**, **Sandra West**, **Carol Miserlian**, **Dan Saenz**, and **Jaime Gonzalez**—who have reached that milestone. All volunteers who have reached the five-year mark will receive a newly designed Texas Amphibian Watch lapel pin. David and April both had a good year in 2007, with April hearing 12 different species on her wetland property in Montgomery County and David locating 12 species in five counties, including populations of many of our unusual South Texas species. Although David has now relocated outside of Texas, his observations over the past five years have brought us much insight about the effect of soils, season, and rainfall patterns on amphibian distribution and activity in South Texas. His assistance with training workshops in South Texas will also be missed. Thanks to David and to all of our outstanding volunteers!



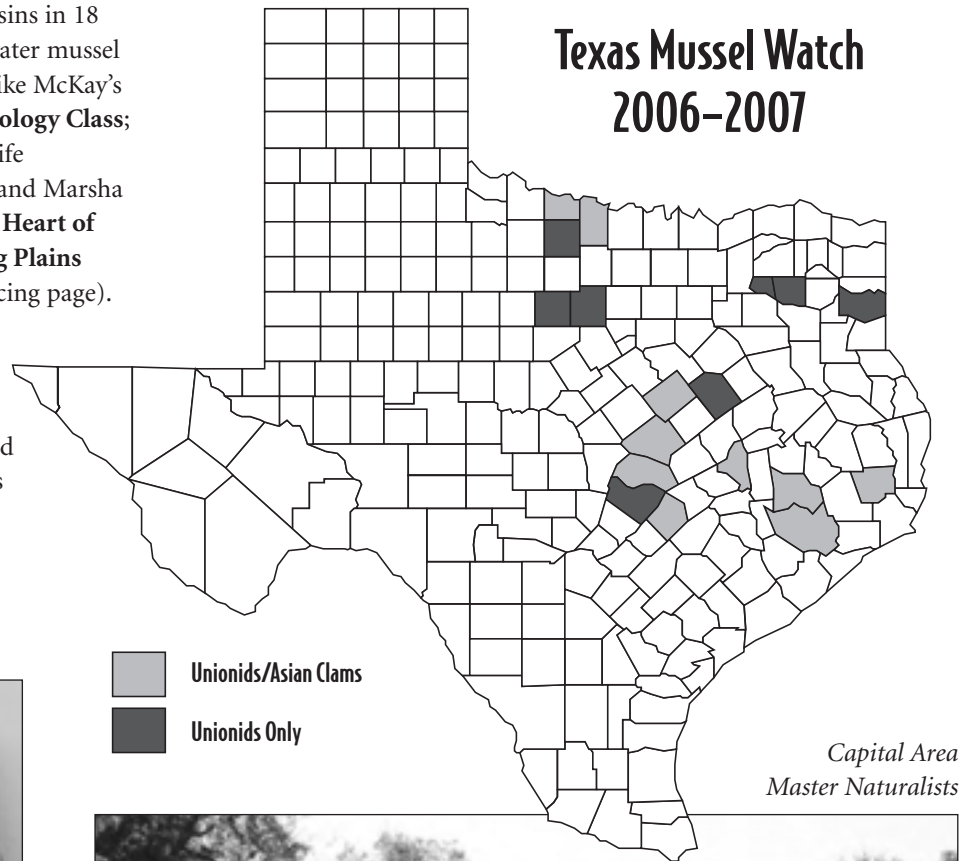
2007 Texas Mussel Watch

Marsha E. May, Texas Nature Tracker Biologist, TPWD

From 1998 to 2007, 105 volunteers have participated in Texas Mussel Watch (TMW). A special *thank you* goes out to **Mike McKay** and all of his students at Texas State Technical College, who have been involved in monitoring mussels in Hubbard Creek Lake every summer since 2001.

In 2007, locations within eight Texas drainage basins in 18 counties (see Figure 1) were examined for freshwater mussel species by 26 TMW volunteers; students from Mike McKay's **Texas State Technical College Environmental Biology Class**; three TMW workshops by Texas Parks and Wildlife Department (TPWD) biologists Lee Ann Linam and Marsha May; and two Texas Nature Tracker Partners, the **Heart of Texas Master Naturalist Chapter** and the **Rolling Plains Chapter, Texas Master Naturalists** (see list on facing page).

Figure 1. Counties where Texas Mussel Watch volunteers recorded unionid mussels and Asian clams (*Corbicula fluminea*).



Unionids/Asian Clams
 Unionids Only

Smooth Pimpleback
(*Quadrula houstonensis*)



PHOTO: © MARSHA MAY





Six species listed as Priority Species in the *Texas Wildlife Action Plan*¹ (TPWD 2005) were recorded by TMW monitors:

- **Rock pocketbook** (*Arcidens confragosus*) – San Jacinto and Sabine rivers
- **Texas pigtoe** (*Fusconaia askewi*) – San Jacinto and Sabine rivers
- **Texas fatmucket** (*Lampsilis bracteata*) – Navasota River
- **Sandbank pocketbook** (*Lampsilis satura*) – Sabine River
- **Texas heelsplitter** (*Potamilus amphichaenus*) – Sabine River
- **Smooth pimpleback** (*Quadrula houstonensis*) – Colorado and Brazos rivers

**Data sheets for 2008 are still rolling in. Keep them coming!
Thank you for all of your dedication!**

¹ 2005 TPWD, Texas Wildlife Action Plan (TWAP)
www.tpwd.state.tx.us/publications/pwdpubs/pwd_pl_w7000_1187a/ (Page 756)

*Rolling Plains Chapter,
Texas Master Naturalists*

PHOTO: © MARSHA MAY



2006–2007 Texas Mussel Watch Volunteers

Lila Arnold
 Karen Arquette
 Steve Box
 Jennifer Bronson
 Tina Colvin
 Cindy Contreras
 Neil Ford
 Laura Gillis
 Dian Hoehne
 Annette Jones
 Jane McCough
 Mike McKay

Jim Miller
 Penny Miller
 Melissa Mullins
 Heather Perry
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 April Proudfit
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 Lynn Seman
 Rachel Smith
 Charlie Stogner
 Jana Sullivan
 Janet Wallace

Nada Wareham
 Adam Whisenant
 Big Thicket National Park
 Workshop
 Brazos Valley Chapter, Texas
 Master Naturalists Workshop
 Rolling Plains Chapter, Texas
 Master Naturalist Workshop
 Heart of Texas Master
 Naturalist Chapter
 Rolling Plains Chapter, Texas
 Master Naturalists

For more information on Texas Mussel Watch, please go to our Web site at: www.tpwd.state.tx.us/mussels



Illinois Mussel Watch

Dr. Stephanie A. Clark, Malacologist / Assistant Collections Manager, Chicago Academy of Sciences

The Illinois Mussel Watch program has been modeled on the successful Texas Mussel Watch program, and was introduced to the general public at the launch of the new field guide to the Mussels of the Chicago Wilderness Area in early May 2008. Seventy-nine species of native freshwater mussels have been recorded from Illinois; of these, 40 are state and/or federally listed as either threatened (8) or endangered (16), state extirpated (11) or extinct (5).

Several people expressed interest in the program, and to date, two small groups of volunteers have braved the elements to sample creeks in their neighborhoods of Greater Chicago.

Over time it is hoped that the program will become statewide. It is hoped that as more people begin to look at the streams, rivers and lakes throughout the state, we will build a better picture of what species are where; and, as with the Texas program, no doubt new populations will be discovered.



PHOTOS: ©STEPHANIE A. CLARK





Maddin Prairie Preserve Update

Pat Merkord and Kirsti Harms, Native Prairies Association of Texas

In the last year, Native Prairies Association of Texas (NPAT) members made three visits to the Maddin Prairie Preserve to monitor the condition of the preserve and catalog species. These surveys were conducted in the months of November, February (two seasons that are relatively undocumented at Maddin) and May. We found a prairie vibrantly alive, surviving on its own, with threatened prairie species thriving in this protected and restored prairie.

Maddin Prairie is an 1,100-acre restored prairie preserve south of Colorado City in the Rolling Plains ecoregion. NPAT has worked over the past 12 years to restore these former croplands to prairie. From 1996 to 2001, native grasses and forbs were seeded. In 2004, an extensive mesquite removal program was carried out. Cattle grazing and deer leasing was halted in 2006. It is a welcome sight to prairie enthusiasts to look out across a vista of tall big bluestem, side oats grama, Indian grass and little bluestem dotting the horizon.

Maddin is not just a home for prairie grasses and forbs. Many prairie species find sanctuary there as permanent or seasonal residents or as migrants passing through. A number of prairie animals now considered threatened, endangered and declining in numbers now find refuge at Maddin. A second prairie dog restoration project began in 2006 and is still surviving despite heavy predation by badgers, coyotes, hawks and snakes. The prairie dog town, situated on a high spot in the preserve, is enclosed by an electric fence with a large mowed area around the perimeter. There is nothing more rewarding than to come upon the town and suddenly see prairie dogs scurrying and running for cover. Sentinel dogs always remain to warn of intruders, standing up looking at the viewers observing them. The dogs are counted three times a day each site visit. Prairie

dog numbers are slightly higher than when first installed. Adult and juvenile prairie dogs, as well as a burrowing owl (the first time seen here) were observed during the November and February visits. Two burrowing owls were seen during the May breeding bird survey.

Besides prairie dogs, other mammal species have been documented. These include coyotes heard howling in the evening, wood rats seen nesting in prickly pear, raccoons, badgers, bobcats, white-tailed deer and the latest addition to the list, porcupine. In February, a porcupine was observed in a mesquite tree contentedly munching on twigs of mistletoe, a favorite food. During two work visits in June, ground squirrels were spotted living in the prairie dog holes. These will require further investigation to identify. Texas horned lizards have also been spotted, and surveys are ongoing.

A total of 98 bird species have been documented at Maddin—eight of those are on Audubon's *List of Common Birds in Decline*. We counted over 300 sandhill cranes flying overhead, indicating the significance of this area of Texas for sandhills.

If you would like to be part of the discoveries being made at Maddin, join us on our next trip.

For information on trips to Maddin Prairie, contact kirsti_harms@texasprairie.org and pat_merkord@texasprairie.org

For more information on Maddin Prairie Preserve, visit www.texasprairie.org/Lands/MaddinPrairiePreserve/Maddin_Prairie_Preserve.shtml

PHOTOS: ©NATIVE PRAIRIES ASSOCIATION OF TEXAS





Texas Nature Tracking on the Prairie

Marsha E. May, Texas Nature Tracker Coordinator, TPWD

The North American prairie historically ranged from Canada to the Mexican border and from the foothills of the Rocky Mountains to western Indiana and Wisconsin. This prairie is referred to as the Great Plains. Approximately 400 million acres of prairie covered the Great Plains before European settlement. The Great Plains Prairie is divided into three different types of prairies defined by the types of grasses found in each: (1) tallgrass prairie to the east; (2) mixed grass prairie in the middle; and (3) shortgrass prairie in the west. The Great Plains Prairie extends into Texas and includes parts of Central Texas, parts of West Texas and the Texas Panhandle.

Grasslands are considered among the most endangered ecosystems in North America. The Texas Wildlife Action Plan (TWAP), created by Texas professionals to conserve wildlife and natural places, prioritized the various ecoregions and species of concern in Texas. The Blackland Prairie ecoregion, a tallgrass prairie that historically ran along Interstate Highway 35 in Central Texas, was identified in the TWAP as a high-priority ecoregion. This ecoregion was identified as the most severely altered in the entire state. Most of the Blackland Prairie has been converted to cropland or urban devel-

opment, and less than 1 percent remains in an uncultivated state. The shortgrass prairie is another important grassland in Texas. Originating in the Trans-Pecos region of West Texas, it extends northward into the High and Rolling Plains ecoregions of the Panhandle. These ecoregions are experiencing a high rate of conversion to crops and fragmentation. Many species of concern call these ecoregions home.

This is where Texas Nature Trackers can play a role. The goal of this program is to enable long-term conservation of these species and to foster wildlife appreciation among Texas citizens through experiential learning. The Texas Horned Lizard Watch, Texas Amphibian Watch and Texas Black-tailed Prairie Dog Watch are three programs currently available to citizens that directly involve prairie species of concern. Other watch programs under the Texas Nature Tracker umbrella include Texas Hummingbird Roundup, Texas Monarch Watch, Texas Mussel Watch and the Texas Box Turtle Survey.

The Texas horned lizard, our official state lizard, is loved by just about every Texan. The historic range of the Texas horned lizard



covered all but the eastern Pineywoods of Texas. In the last 30 years Texas' favorite lizard has disappeared from the eastern third of Texas and is increasingly rare in Central Texas. Only in West Texas and South Texas do populations seem to be somewhat stable. This animal is a species of concern and is listed by the state as threatened. Texas Horned Lizard Watch is a great way for citizens to get involved in "on the ground" data collection and observations of this charismatic critter.

Amphibians are a barometer of the health of environments we all share. Recent reports suggest that up to 40 percent of amphibian species in the Americas are declining. Texas Amphibian Watch focuses mostly on frogs and toads, collectively called anurans, and due to the tallgrass prairie to the east getting more annual rainfall than the shortgrass prairie in the west, it would seem to make sense that there would be more anuran species in a wetter ecoregion. There are around 15 anurans in Central Texas and only around 10 in Northwest Texas. The only anuran species of concern in these three ecoregions is the secretive Hurter's spadefoot toad. It can only be found in the Blackland Prairie and regions south and east. These toads are seldom seen. It takes a major rain to coax them out of their burrows. Males have a mating call that sounds like a moaning "Waaaaah." Texas Amphibian Watch is another way for citizens to get involved, and all it takes is a good ear—most of the data collected are the mating calls of frogs and toads.

Black-tailed prairie dogs are an icon of the grasslands. These animals were once common but now occupy less than 1 percent of

their historic range. Prairie dogs are an important part of the prairie ecosystem; their digging aerates and promotes soil formation, they clip brush maintaining the shortgrass prairie, and they are a keystone species providing food and shelter for as many as 170 different animals. Data collected through the Texas Black-tailed Prairie Dog Watch is an opportunity for citizens to help widen our understanding of these prairie sentinels.

To find out more about these and other watch programs, go to www.tpwd.state.tx.us/trackers





A Passion for People

John M. Davis, Conservation Outreach Coordinator, Wildlife Division, TPWD

I'm a wildlife biologist. Therefore, I'm in the "people business." If you think those two statements contradict one another, you're not alone. However, it's true. Wildlife management is people management. Think about it. People own the habitat. People make land-use decisions. People enact environmental policy. People vote. It's people who decide the fate of wildlife. So, as one who loves wildlife, I'm in the people business.

Unfortunately, I feel that there are many who get into the wildlife management field without understanding that fact. It's a common misconception that one can become a wildlife biologist and be a "Grizzly Adams" type, living in the wilderness and not having to deal with people. Those days (if they ever really existed for wildlife managers) are long gone.

Today's Texas is a fragmented and urban one. In 2000, 20.8 million people lived in Texas. Of those, 17.9 million (86 percent) were urbanites (city dwellers). The areas of Dallas/Fort Worth and Houston housed a whopping 47 percent of our entire population! By 2040, it's projected that nearly 90 percent of our population will live in the city with over half of the state living around Dallas/Fort Worth or Houston. We are a state of urbanites and there is no indication that this trend will cease any time soon.

How does that relate to the seemingly endless open terrain in the rural parts of Texas, you ask? Many, if not all, of the conservation issues statewide are tied to people. First, water quantity and quality issues are directly tied to our human population and the impacts of urbanization. Many folks worry about how we will provide water for all the people in Texas while still leaving some for fish and wildlife. Folks also debate the construction of new reservoirs to meet the demand for humans at the expense of bottomland hardwood habitats. Nonpoint source pollution is a term that describes chemical and physical contamination that's picked up as

rainwater washes over parking lots, rooftops, etc. This category of water pollution is often the most damaging to water quality in our streams and rivers and is usually directly tied to urban land uses.

Second, the large landholdings of Texas' past are being carved into numerous, smaller landholdings. A significant percentage of the landowners in Texas today are absentee landowners. They own property "out in the country" yet live in the city. Many of these new landowners are anxious to learn how best to manage property for wildlife. As wildlife managers in Texas, we must be able to connect not only with our traditional landowners, but also with the new landowners who often bring different value systems, goals and objectives to the table with them.

These are just two examples that our human, largely urban population is having direct or indirect impacts on wildlife resources well beyond the limits of the local city. With the previously mentioned population projections, these issues aren't going to get any easier. In fact, they are likely to become even more complicated for wildlife managers.

Unfortunately, most wildlife managers aren't trained to operate in this new people-centered environment. Most of us were taught about population dynamics, habitat manipulation, and carrying capacity of the land, but today's wildlife biologist has to deal with development, public speaking, changing social values, regional planning, etc. So, like any species in a new environment, we must adapt, migrate or die. Fortunately for us, we are adapting. As of 2005, we are blessed with a guiding document called the *Texas Wildlife Action Plan*, which was painstakingly developed over a year's time by the talent of many, very educated and passionate people. In this document, we have a vision of where to place priorities to ensure the continued existence of the wonderful wildlife in our state. The plan also emphasizes the importance of working with people. Therefore, it actively supports the Urban Wildlife Program, the Wildlife Interpretive Program, Texas Nature Trackers, Texas Master Naturalist, and Texas Wildscapes, which are a few of the programs specifically designed to meet people where they are and lead them to a better relationship with wildlife. As the Conservation Outreach Coordinator for the Wildlife Division, I am proud to be associated with all of these programs and am excited about the role each will play as we all strive to conserve our beloved species and habitats for the enjoyment of future generations.

Hopefully, I'll soon get to meet you as part of one of these programs and hear about the particular plant or animal that just lights you up (mine's the Texas horned lizard). Until then, take care and remember ... as wildlife enthusiasts, we're in the people business.



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Kids as well as adults get hands-on with nature as Wildlife Division staff at Texas Parks & Wildlife Expo engage visitors.

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