

The Steward

Fall/Winter 2021/2022 Highland Lakes Master Naturalists Volume 13 Issue 1



Message from our President

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By Suzanne Adkinson

I'd like to thank all of you who have embraced "the change" I have thrown at you as your new president. Change is hard. Often the new guy/gal comes in and starts changing things and people aren't that supportive. But not you guys! Our first Off-Site meeting at Candlelight Ranch last month was a huge success. We had upwards of 60 members in attendance (a record number since Covid). I also want to relay all the positive comments I received from you at the end of the meeting. Our members loved the hike they attended and the location. It's nice to come together as a group and continue to work as one.

As we head into Spring, I wish you luck in all your partner's endeavors. I know each of you work hard to make it better. If you are looking for volunteer opportunities, or want to explore different locations to volunteer, please reach out. All requests for volunteers are located on groups.io.

I would personally like to thank all of you for the things you do. Without your hard work we wouldn't have nearly as many bird blinds, wildlife viewing stations, pollinator gardens, trails maintained, and invasive species removed. Maybe, most importantly, are the lives of the people you touch when you lead them through touch tables, backyard bass, interpretive hikes and archery.

Keep Being The Change,

Suzanne

Thank y'all for ALL!!

New Pavilion at Inks Dam National Fish Hatchery

A Joint Venture

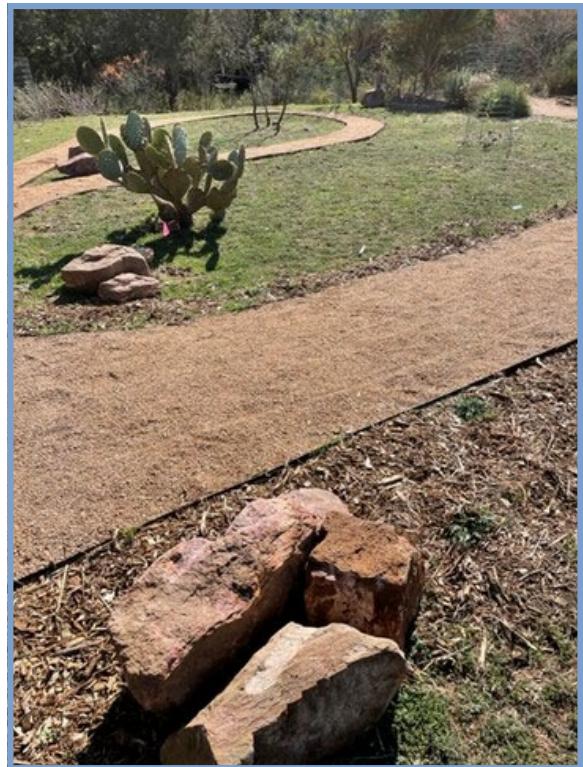
By Linda O'Nan

The joint project between Friends of Inks Dam National Fish Hatchery (FOIDNFH) & Highland Lakes Chapter of the Texas Master Naturalist Program (HLMN) is moving forward, despite Covid, spring flooding, and literally "road blocks" (paving project throughout Hatchery facility). The Interpretive Pavilion, a metal shade structure, was erected several weeks ago. Volunteers recently added gravel flooring and a walkway entrance attached to the Pollinator Garden. Benches, courtesy of Inks Dam National Fish Hatchery (IDNFH), were assembled. More volunteer opportunities will be available with additional interpretive walkways. Plans to add signage/outreach materials, and additional native trees, shrubs & plants are also in the works.

The FOIDFH Pollinator Garden Committee requested this partnership with HLMN and received approval for the project. The Interpretive Pavilion and Pollinator Garden Project supports the Texas Master Naturalist Program mission statement. HLMN members look forward to participation in this ongoing venture with the Hatchery Friends. Linda O'Nan, Jerry Stacy

Photo by
Linda O'Nan

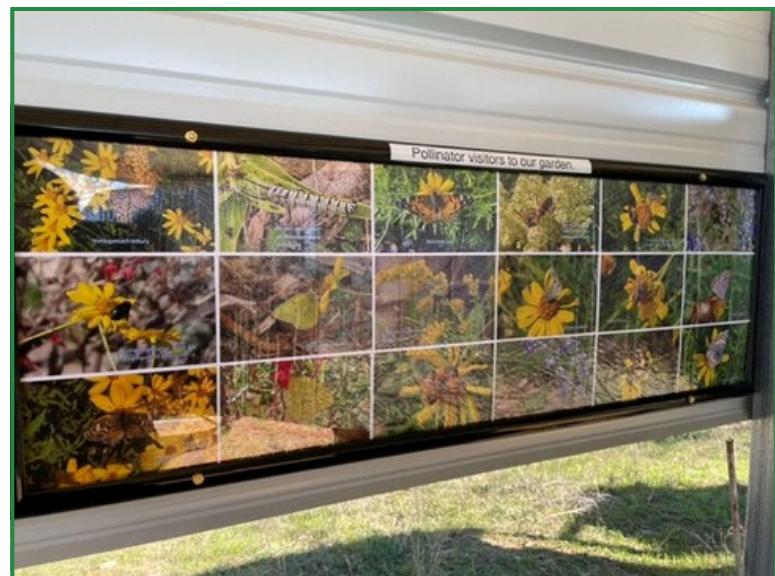




Above left: The **BUTTERFLY WHEEL** is part of the new interpretive materials at the Hatchery Pollinator Garden & Pavilion, a joint project of Friends of Inks Dam Fish Hatchery & Highland Lakes Master Naturalists. Butterfly Wheel in Pollinator Garden Photo by Phil Wyde

Above right: Phyllis used her super powers & brought some big rocks ! Photo by Linda O'nan

Below: Jerry assembled some nice pics of flies, bees and butterflies he took over the last several weeks in Pollinator Garden.



The Class of 2020-2021

Every Master Naturalist Graduating Class is special, but the Class of 2020-2021 will be renowned. **They will be famed for their persistence, drive, commitment, and wellness.**

Here is what class member James Reimer divulged.

The 2020 HLMN class started on Feb 24 2020 and completed 3 sessions before Covid overtook us. Most of the original approximately 20 members of the class were enthusiastic and were looking forward to continuing, but as time wore on and life conditions changed we had 7 participants make a commitment to continue. We did pick up DJ Sanders who audited the course to learn more about the conditions in this area and to contribute her "west Texas knowledge" to the class.

After many false starts and stops we finally started up again on Sept 13th 2021 and were able to finish on Nov 1st 2021. Many in the class have finished their initial VS and are certified Master Naturalists!

Due to the uncertainty of restrictions for Covid and time constraints, a number of the scheduled venues for education had to change. A huge thank you should go out to Bill and Chris McCartney and also Billy Hutson for making sure we could get the required training. Some of the highlights of the training were the riparian walk with Ricky Linex, the in depth tour of the fish hatchery operations, and the wonderful walk around Billy's ranch with Bill Carr as the teaching botanist.

Thanks to The Texas Master Naturalists and the members of HLMN for providing us this opportunity and inspiration to learn and to hopefully pass along what we have learned to other naturalists and to the public!!



The 2020-2021 Class at Inks Dam National Fish Hatchery Photo by Chris McCartney
DJ Sanders, Dianna Hodges, George Barr, Bill McCartney, Louise Suhey, Rick Vance, Bob Crow
Jerry Stacy, James Reimer.



DJ Sanders, Dianna Hodges, George Barr, Bill McCartney, Louise Suhey, Rick Vance, Bob Crow, Chris McCartney, and James Reimer. MJ Hansen missed this picture but finished the class. Jerry Stacy was the instructor for this session.. Photo by Jerry Stacy

Plants Send Smoke Signals

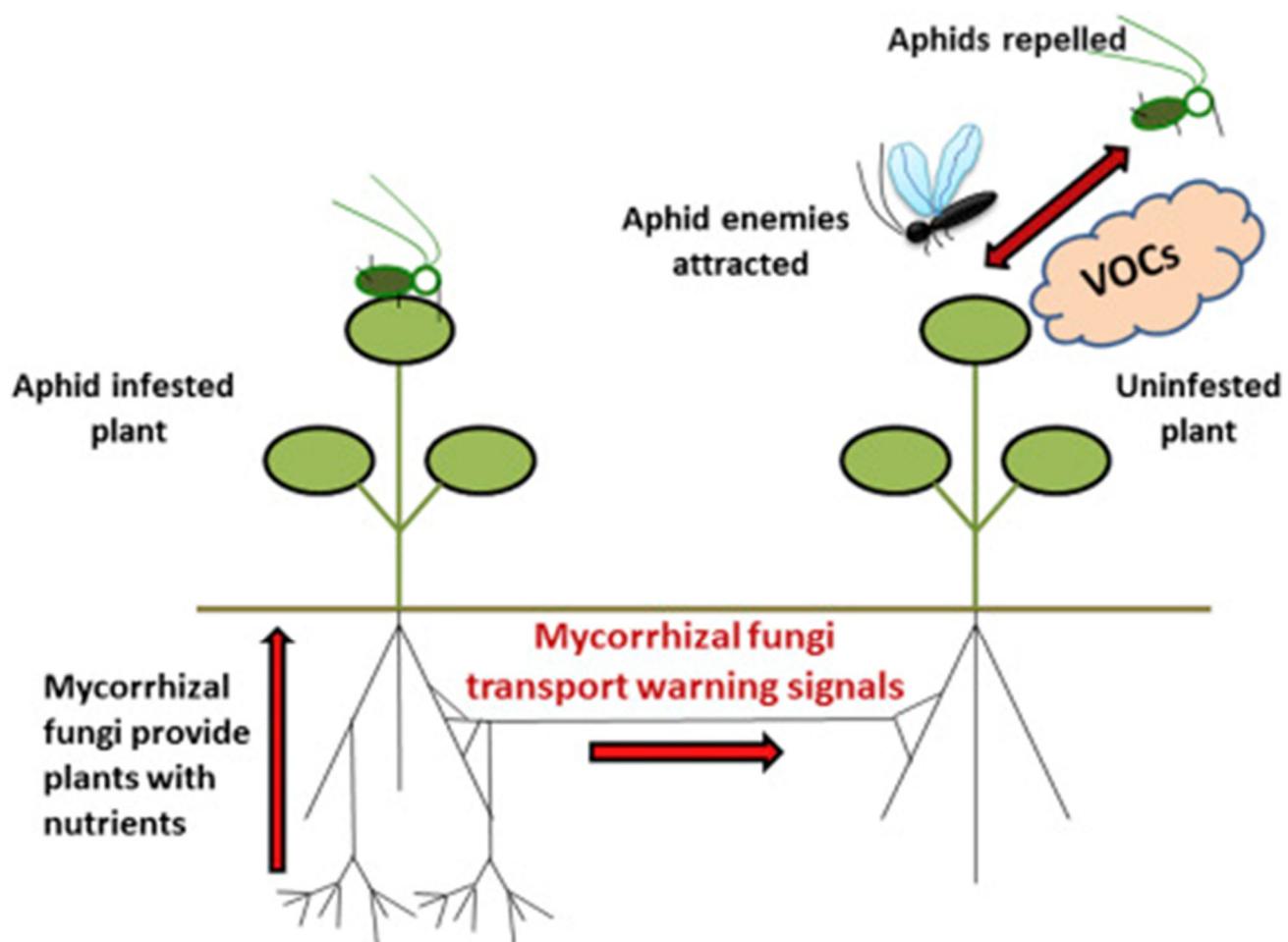


By Bill and Martelle Luedcke

How do humans react when they sense or are in trouble? We holler for help, call for help, wave our arms... Yet plants are a little different. They basically send up 'smoke signals' to communicate with "others" Check this out.

First we know that plants have basic defense mechanisms. For instance: Thorns (Pyracantha), Prickle (rose bush), Spine (cacti), Trichome (nettle), Idioblasts (dumb cane), Mutualism, Crypsis, Chemical signaling, Poison. [Sidenote: did you know ... Idioblasts fire barbed calcium oxalate crystals into the mouths of predators and then release an enzyme similar to reptilian venom causing paralysis or loss of speech.]

But what if these basic defense mechanisms don't solve the problem? Here's the really cool part!! The direct ecosystem pulls together similar to defending a castle. It's a complete defense system of a multitude of simultaneous actions. If you're defending a castle, you don't simply pull up the draw bridge. You raise the alarm to neighboring villages. Call the archers, knights and men at arms.



In the diagram above you can see how an uninfested plant warns its neighbor by underground warning signals. Plants warn their neighbors of impending attacks via thread-like filaments of fungi that connect roots. Another way the castle pulls together, this is a favorite, is using the VOCs to send smoke signals out to the predator of their predator. For example, unwanted caterpillar settling in for a snack. The plant emits VOC to not only "hail the wasp" which gladly feeds on invading caterpillar, but to alert neighboring plants to amp their defense system.

What are volatile organic compounds?

VOCs are chemical substances produced and emitted by plants and other organisms in gaseous form. Composed of carbon, they help plants to attract pollinators, defend against herbivore insects and parasites, and serve as signals to neighbor plants.

Teamwork gets the job done. Got to love the interdependent workings of nature!!



Fall Color: Purple is the New Orange

By Becky Breazeale

On my morning walk on Summit Rock, I came across several blooming plants that I had never seen on this walk before. The first plant I encountered looked like this.



I wasn't certain of the ID so I went to iNaturalist for help. The iNaturalist "suggested ID" was Texas Skeleton Plant *Lygodesmia Texans*. I was later confirmed of ID by iNaturalist jbecky. Then I went over to Ladybird Johnson Wildflower Center <https://www.wildflower.org/plants/> to investigate the plant. Once I was on the site, I just typed Texas Skeleton Plant and clicked the search button.

Turns out it is also called Texas Skeleton Weed, Skeleton-plant, Purple Dandelion, and Flowering Straw. As a member of the (*Asteraceae*) aster family, growing 12 to 15 inches tall, it's leafless stem alludes to the common name. One flower on each forking stem, bracts form a tube one inch long, and flower heads open almost flat. It is a perennial found in Texas, New Mexico, and Oklahoma and blooms through the summer and early fall. It is a useful nectar source and its purple color attracts hummingbirds.

The second plant I saw was this one. (pictured right)

Texas ironweed *Vernonia texana*, was also ID by jbecky on iNaturalist. There wasn't as much information on Texas ironweed from the Ladybird Johnson Wildflower Center, but iNaturalist filled in some gaps. Texas ironweed is also a member of the (*Asteraceae*) aster family. It can grow up to five feet. The alternating leaves are very slender and tapered. The purple blooms are rare and usually white or pink during summer and early fall. It is a perennial which can be seen in Texas, Oklahoma, Arkansas, Louisiana and Mississippi.

The last plant I have seen in the past along Highway 71, but not on my walking trail. It has one of the most unusual blooms I have ever seen; the Leavenworth's eryngo *Eryngium leavenworthii*.

To continue learning about Leavenworth's eryngo, read Louise Suhey's article below.

<https://www.inaturalist.com>

<https://www.wildflower.org/plants>



“Blue Sea Holly”-Purple Pineapple of the Prairie

By Louise Suhey

My first native plant pick of the new year is ‘Eryngio’-*Eryngium*, e-RING’-gee-um, *leavenworthii*, a re-seeding, annual native of Texas. To remember the pronunciation of it’s common name, I think of Ringo Starr (the Beatles) and add an ‘E’ on the front. It is also called ‘False Purple Thistle’ because it gets mistaken for TX Thistle. The species name comes from Dr. Melines Conklin Leavenworth (1796-1862), from Connecticut, who was a renown explorer, army surgeon on the Louisiana frontier, and botanist.

In the genus *Eryngium*, there are 230 species, mostly annuals, and a few perennials. Most are grass-land prairie plants native to the mid-west USA. It likes limestone or chalk soils, found in dry, rocky prairies, roadside fields, open woodlands, and waste areas. Eryngos are part of the Apiaceae Family (parsley), where most of the popular culinary herbs can be found.



Variegated Fritillary on the Eryngio
Photo by Louise Suhey

On www.gardenia.net there are photos of 20 different varieties. Some are white (silver) such as Miss Willmott’s Ghost Flower. *E. pandanifolium*, ‘Giant Sea Holly’, grows to 8’ tall. Many people in Texas may be familiar with ‘Rattlesnake Master’, *E. yuccifolium*, which is white and grows in Zones 3-9. Indians thought it was an effective antidote for rattlesnake bites. There is no truth to this old wives tale.

Last year I carved out a 15’X52’ fenced area on our property for experimenting with native seeds and interesting shrubs. I can truthfully say that nothing happened until the plentiful rains came this spring. The Eryngio seeds I purchased were ordered from the Native Seed Company, www.seedsource.com. One package cost \$6 and it was plenty. This plot of land was the slag area after our Grey Llueder house was built three years ago. It is a mix of TX Red Dirt, chipped limestone, and decomposed granite. It drains very well, which these native plants like, and receives full sun. I just throw seeds out on the soil like chicken feed, after the last frost, and watered once a week till

the seeds sprouted. Then the rains came in late spring. Multiple stalks came up out of each plant. Two plants did very well and really took off in July. Both grew to over 4’ tall and one fell over on its side. Just kept right on blooming.

The plant has no serious pests or diseases, and loves the heat. I only have time to water this large plot once a week and it did spectacularly. The 27 degree cold snap we received mid-December didn’t faze it at all. It is said to grow in zones 2-11. Ricky Linex, the fabulous riparian and native plant expert told our 2021 class that the seeds have tails. Also don’t cut it down in winter because it releases its seeds in February, when there is nothing else for the birds to eat. It is loved by all kinds of pollinators: butterflies, moths, ants, beetles, bees, flies, grasshoppers, and even Crab spiders.

As you can see from my photos, the foliage is deeply lobed gray-green and slowly turns to a vibrant, dark purple, as do the pineapple shaped flowers with time. The flowers sit atop elongated stems on spiked leaves, and form cones of purple, tightly clustered blossoms that look like small, fuzzy pineapples. Definitely wear gloves when working with this plant. Look closely for the small, pale blue anthers protruding from the numerous tiny flowers. The stiff spines on the top and bottom are very sharp and make it deer resistant. This species seems to be the only one with the spines on the top side, at least from all the photos I looked at. Eryngos also make wonderful cut flowers that keep their color.

If you like plants out of the ordinary and alien-like, this one is for you. Once you see that dark purple color against a landscape of frozen, dead plants, you will never forget it. I'm thinking in the future it might be nice to pair it up with some tall, yellow Goldenrod, (*Solidago* sp.) They both bloom in late fall, and the pollinators will have a feast!



Blue Anthers at the Bottom of the Blooms



Photos by Louise Suhey

Goings on at Bamberger Ranch Preserve

By Patty Harrell

Participation vs. Precipitation

When 5th graders first arrive at the Bamberger Ranch Preserve, the ranch staff reviews the ground rules including an expectation that everyone will actively participate in the upcoming activities. Not long afterward, the students have their first lesson on watersheds. Then comes the dreaded memory test...

“Okay kids, what falls from the clouds to the ground onto the watershed?”

Some muffled responses are shared and the consensus says “Condensation!”

“No, condensation is different, but close. The word I’m looking for begins with the letter ‘P’ and ends with ‘tion’.”

In unison, the class replies “Participation!”.

You have to admit, they were listening and ‘Participation’ does sound a lot like ‘Precipitation’.



Raindroppin' on the Bamberger Ranch

It is something of an unwritten rule that all visitors to the Bamberger Ranch are expected to visit the Rain Machine, at least once. For the 3rd graders from Dripping Spring ISD, this experience began with having the “raindrops” (a.k.a. kids) gather together at the top of the hill.



Photo Credit Patty Harrell

From there, they go raindroppin' down the hill to the Madrone Lake patio where the Rain Machine is located.



Photo Credit Patty Harrell



Rain Machine Photos Credit DJ Sanders

Entertaining Grandkids, friends, family over Easter or Summer? Here is a Bingo Game from Bird and Moon.com that you can print out. Use beans or popcorn for game pieces.

urban biology B I N G O urban biology B I N G O



birdandmoon.com



birdandmoon.com

Veterans' Fishing Event at Inks Dam National Fish Hatchery

By Phil Wyde

Fifteen people showed up to fish at the morning session. Of the 15, 4 were wives and 6 were children. Everyone had a grand time and expressed their delight with their fishing experience.

Twenty-two people showed up to fish at the afternoon session. Of the 22, 6 were veterans, 7 were wives or husbands, 6 were children. The remainder were buddies of the vets. As in the morning session, everyone had access to ice, water and transport to and from their fishing spots. Each group, again as in the morning, had a Friends of Inks Dam National Fish Hatchery (FOIDNFH) assistant that helped net the fish that the visitor caught, helped them remove hooks from the fish and helped them in any way that they could. Everyone of the participants said that they had a wonderful time and asked about when other Inks Dam National Fish Hatchery (IDNFH) events would take place.

All those that came really were delighted and left glowing. The children were particularly ecstatic and I think "hooked" for life on fishing. The low number of attendees was good in one way. It was relatively easy to maintain COVID19 safety protocols. Hatchery staff present on both Friday and Saturday were extraordinarily helpful in getting everything ready!

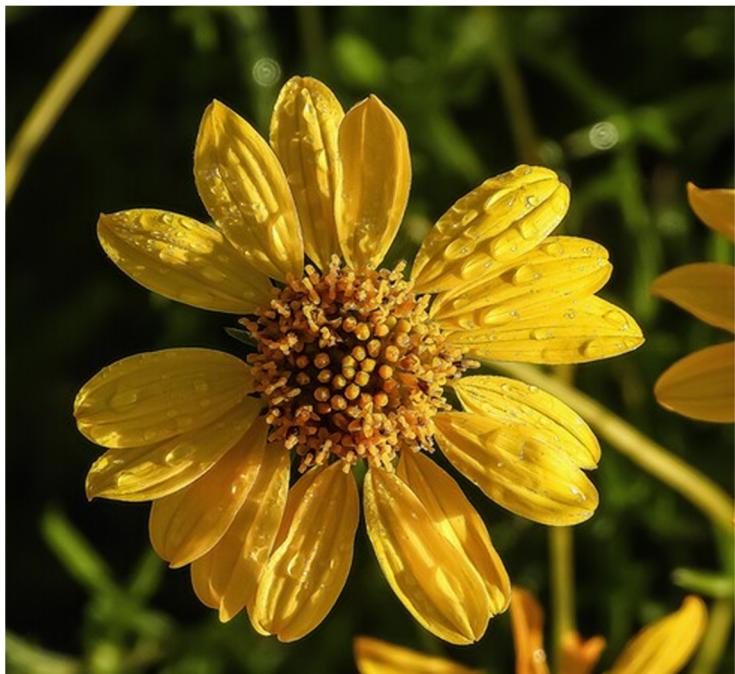






Sights at the Hatchery in Late November





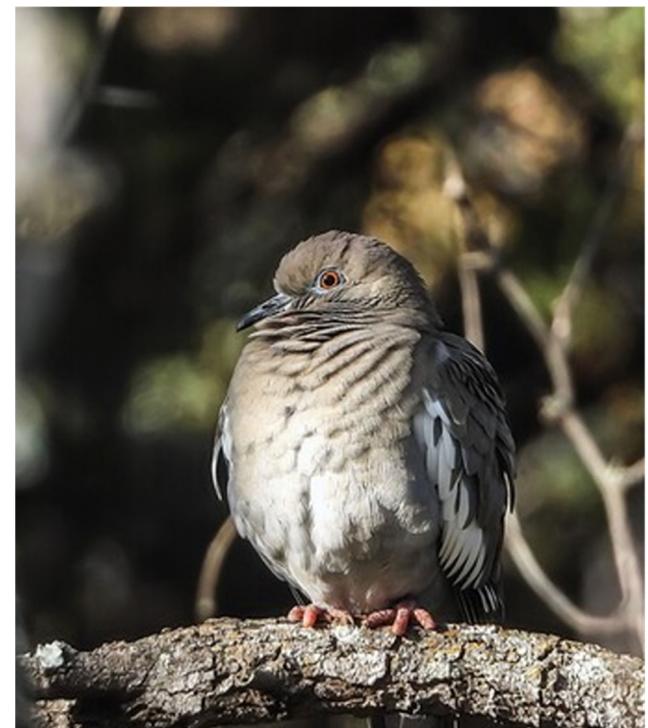
Golden eye



Apache Bloom

Photos by Phil Wyde

White winged doves



Wayward Bird from birdsandmoon.com





MISSION

The Texas Master Naturalist program is a natural resource-based volunteer training and development program sponsored statewide by Texas A&M AgriLife Extension and the Texas Parks and Wildlife Department.



The mission of the program is to develop a corps of well-informed volunteers who provide education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities for the state of Texas

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