



2024 FALL SYMPOSIUM PROCEEDINGS

**October 10th-12th
New Braunfels, Texas**

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SECTION ONE: ABOUT THE REGION

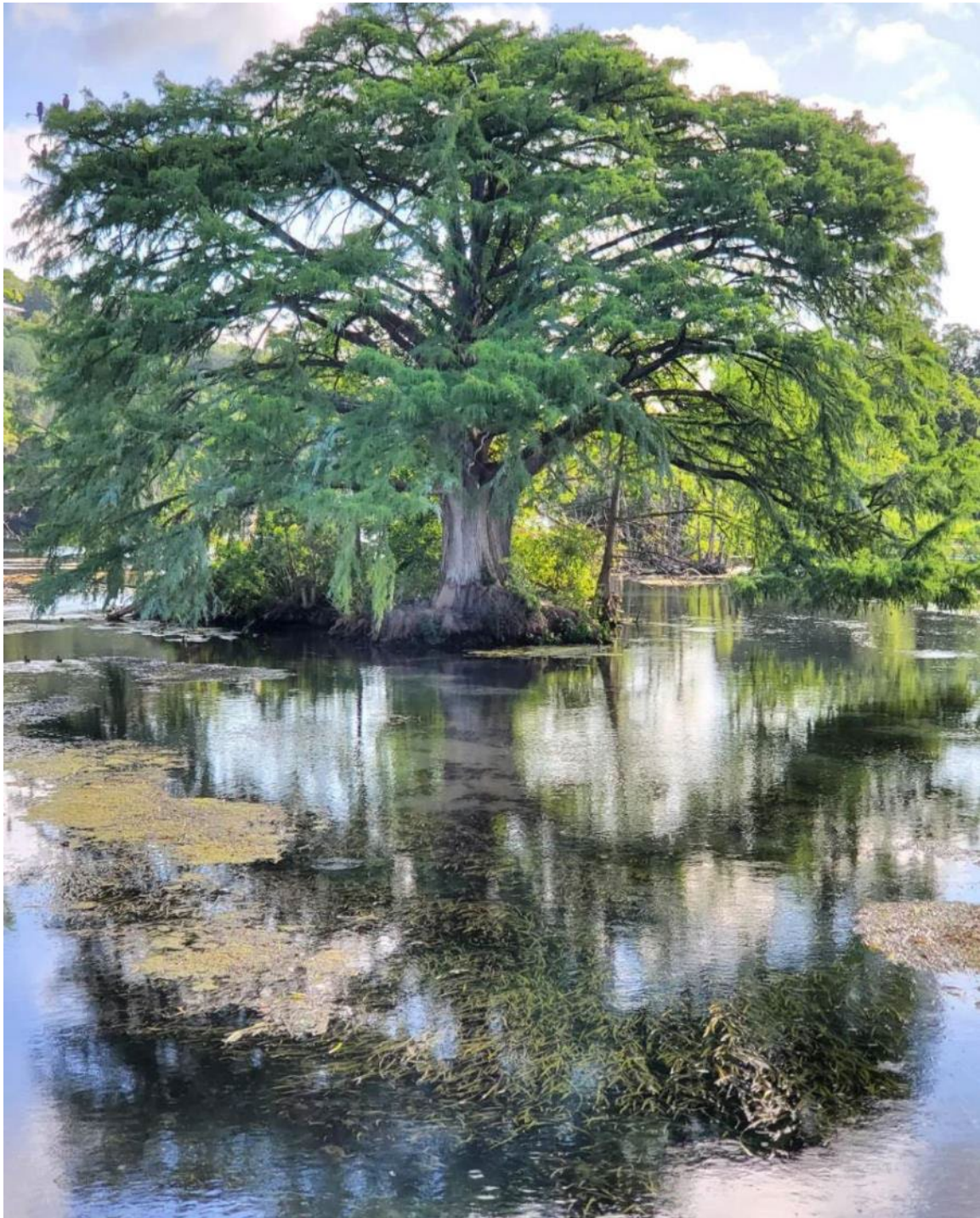


Photo Credit: Kathleen Scott, Bald Cypress in Landa Lake, Landa Park

New Braunfels, the location of our Fall 2024 Symposium, straddles both the Edwards Plateau Ecoregion and the Blackland Prairie ecoregion. Interstate 35 divides the city of New Braunfels; its path through the city closely parallels the boundary of these two ecoregions, with the Edwards Plateau on the west side and the Blackland Prairies region to the east. The Edwards Plateau area is also called the Hill Country; however, this general term covers a much larger area extending farther north. Spring-fed creeks are found throughout the region; deep limestone canyons, rivers, and lakes (reservoirs) are common. Ashe juniper is perhaps the most common woody species found throughout the region. Additional woody species include various species of oak, with live oak ([Quercus fusiformis](#)) being the most common. Sycamores ([Platanus occidentalis](#)) and bald cypress ([Taxodium distichum](#)) border waterways. This area is well known for its spring wildflower displays, though they may be viewed in spring, late summer, and fall, as well. According to Texas Parks and Wildlife, average annual rainfall in the Edwards Plateau ranges from 15 to 34 inches.

The Blackland Prairie extends from the Red River south to San Antonio, bordered on the west by the Edwards Plateau and the Cross Timbers, and on the east by the Post Oak Savannah. Annual rainfall averages 30 to 40 inches, with higher averages to the east. This region is dominated by prairie species. The most common grass species include little bluestem ([Schizachyrium scoparium](#)) and Indian grass ([Sorghastrum nutans](#)) in the uplands and switchgrass ([Panicum virgatum](#)) in the riparian areas and drainages. Common herbaceous flowering plants include salvias, penstemons, and silphiums. This area has suffered greatly from overgrazing and agricultural use. Few intact areas remain, though many of the plants can be found along county roadsides throughout the region.

Our four host chapters (New Braunfels, Lindheimer, Guadalupe, and the Hill Country chapters) are located in one or both of the ecoregions above. However, the eastern portion of Guadalupe County also falls within the Post Oak Savanna ecoregion. Annual rainfall averages 35 to 45 inches, with higher averages to the east. A wide variety of hardwood trees are found, including several species of oaks, elms, and in the Bastrop area, loblolly pine ([Pinus taeda](#)). Grasses and forbs dominate in the open savannas, with most common grass being little bluestem. Ranching, agriculture, and fire suppression have allowed woody species to encroach on the once-open savannas.

Source: [Wildflowers of Texas](#) by Michael Eason

SECTION TWO: PAPERS, SUMMARIES, AND HANDOUTS



*Photo Credit: Meghan James, Edwards Plateau, Matelea reticulata;
Edwards Plateau Ecoregion Photo Contest and Best in Show Winner*

MAKING THE MOST OUT OF NATIVE PLANTS IN CULTIVATED SPACES BY ANDREA DELONG-AMAYA

Native plants in private landscapes fill a critically important ecological role and bolster our botanical heritage during this age of habitat destruction. For some of us, doing the “right thing” to preserve biodiversity is enough, but to bring more folks into our tent, it is critical that native plants are pleasing to people, too. This talk will describe how to use central Texas natives in a range of garden styles from wild to formal, as well as how to create a dynamic landscape with plants that can serve a variety of needs including sunny or shady areas, lawns, containers, water gardens, wildlife, maximizing plantings for all seasons, and even natives that feed people.

1. What is a native plant? A plant that occurs naturally where it evolved.
 - Geography
 - Differences between invasive, naturalized, adapted plants, and “wildflowers”
2. Why Native Plants?
 - a. Reduce the threat of invasive species
 - b. Resource conservation
 - **Water**
 - Soil amendments, pesticides, fertilizers often unnecessary
 - =Energy= Money
 - c. Weather extremes and climate change
 - d. Wildlife habitat
 - e. Gesture of regard and reverence. Connect with the natural world
 - f. Promote regional identity and botanical heritage
 - g. Native plants are beautiful in their own right!
3. Design styles and native plants:
 - a. A continuum
 - Naturalistic
 - Picturesque
 - Formal
 - Wildflower Meadows
 - b. Proper maintenance to ensure design intent
4. Using NPs in cultivated settings:
 - Container Gardens
 - Turf: “What’s better than clover lawns and No Mow Mays?”
 - benefits of multi-species lawns

- Other Groundcovers; “living/green mulches”
- Rain Gardens
- Wildflower Meadows and ecological succession
- “timesharing”

Creating a Dynamic Garden

- visual energy: movement and light
- sound
- fragrance
- flavors

5. More Resources

- Native Plant Sales (JWC and local NPSOT chapters)
 - Native Plants of North America: <https://www.wildflower.org/plants/>
- TX Native Plant Primer, book release in March 2025!

LAND STEWARDSHIP (IT MAY BE MORE THAN WHAT YOU THINK) BY STEVE NELLE

The topic of land stewardship has gained a great deal of increased attention during recent decades. This is good since it helps focus greater awareness to the importance of how the land is treated. And it helps direct positive light on the people who own and manage the land and who carry out responsible land care.

However, the term “land stewardship” to some extent, has become a feel-good phrase that is not always well understood by those who use the term. When words become popularized, there is a risk that the true meaning may be altered or watered down. In some ways, “land stewardship” is becoming an over-used slogan, lacking some if not much of its real meaning and character.

What Land Stewardship is Not

Before defining land stewardship, it is important to note some common misperceptions about land stewardship. The following are three ways in which the true meaning of land stewardship is sometimes compromised:

Across America, there are many organized and collective land stewardship endeavors: land stewardship projects, programs, initiatives, and, ventures of many colors. These are probably all good efforts that promote good land management. However, it is important to understand that especially in a private land state like Texas, genuine land stewardship is mostly an individual matter. It is not a collective project or program. Land stewardship is ultimately about the relationship and connection between a landowner and a piece of land.

Secondly, land stewardship is commonly discussed in context with various conservation awards. These award programs are generally good and it is proper that we recognize those who exemplify the best in land stewardship. But land stewardship is not about plaques and banquets. Land stewardship is mostly a private matter - what happens when no one is looking and no applause is to be gained. There is a deep humility associated with authentic land stewardship which is not motivated by the desire to be recognized.

Thirdly, land stewardship is sometimes misunderstood as being synonymous with various land management practices. In many cases, the listing of a suite of conservation practices has become the standard measure of land stewardship. But land stewardship is not merely the implementation of practices. Just because a person conducts brush management, native grass re-seeding, rotational grazing, prescribed fire or other land management practices, this does not necessarily equate to land stewardship. Each of these practices can be done well, or can be done poorly; sometimes with beneficial effect and sometimes with detrimental results. The practices are neither good nor bad – it is how they are applied that determines the outcome.

The distinction may seem minor to some, but it is important to note the difference between the implementation of conservation practices and land stewardship. Land stewardship is the inner motive and conviction that generates and guides true conservation. Land stewardship is more about who you are on the inside – your values, motives and inner character - rather than a checklist of what you have done.

Genuine Land Stewardship

The great American conservationist, Aldo Leopold codified the essence of land stewardship in his classic, A Sand County Almanac. Leopold was an avid botanist, hunter, fisherman, forester, birder, writer, professor and nature lover, but what he is best known for is his deeper philosophy of the land – what has become known as “land ethics”. Leopold himself was a private landowner, and advocated that stewardship is best carried out on private lands by private landowners.

Two primary Leopold excerpts summarize the essence of land stewardship:

“It is inconceivable to me that an ethical relation to the land can exist without love, respect, and admiration for land, and a high regard for its value.”

“A land ethic reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of land.”

These are the essential elements of land stewardship. In addition to a deep-seated affection and respect for the land, the land steward has a keen and sensitive conscience toward the land, and thinks as much about their responsibilities toward the land as they do their rights as a landowner. He or she has self-imposed voluntary limitations on what can and cannot be done with the land.

Based in my 48 years of working with private landowners in Texas, combined with the philosophies of Aldo Leopold, here is offered a fitting definition of genuine land stewardship:

Land stewardship is a deeply held inner conviction that motivates and compels landowners and land managers to care for and sustain the land that has been entrusted to them. Their motivation for this is fourfold:

- *Because they consider it the ethically right thing to do*
- *For their own personal benefit, including financial benefit*
- *For the benefit to future generations*
- *For the benefits to society*

The motivation of caring for the land for the benefit of others is an important distinction of the land steward. There is a great deal of benevolence involved in genuine land stewardship. It involves doing the right things in the right ways for the right reasons for a good outcome.

Characteristics of Land Stewards

Land stewards are distinctive among the larger group of landowners. They stand out with several characteristic qualities:

Knowledge – land stewards have a working knowledge and understanding of the land, including the soil, water, plants, animals and the ecological interrelationships of these forces. Their love for the land manifests itself in concrete skills, abilities and workmanship. Land stewards may be self taught, or educated, but they are always searching to better comprehend how the land works.

Dedication – land stewards are highly committed to the health of the land. It is a full time lifestyle, not a pastime. Their work ethic is driven by their passion.

Perseverance – the land steward realizes and anticipates that there will be hardships, difficulties and setbacks; they have the determination to keep working toward stewardship goals no matter what.

Investment – land stewards invest themselves, their resources, and even their families in the stewardship life; and like any wise steward, they expect a return on their investment; sometimes an economic return but always ecologic benefit.

Big Picture – land stewards are able to look down the road and consider the long term, wide angle perspective. They look to solve land problems, not merely treat symptoms. They see how their decisions affect other lands and other people.

Realistic – land stewards realize they are working with nature and therefore do not call all of the shots. They do not try to artificially “improve” the land beyond what its natural capabilities are. They do not look for quick fixes or simple solutions.

Integrity - the land steward is usually a person of integrity; integrity in business dealings, with employees, with family, and integrity with his or her own convictions toward the land.

Stewardship lands also share some distinctions. Stewardship lands tend to be more biologically diverse, stable and resilient. They are balanced, functional and self-sustaining in an ecological sense. Stewardship lands are also productive and profitable, providing tangible products and services for mankind. These benefits to society include: water quality, sustained flows, reduced flood intensity, aquifer recharge, wildlife habitat, carbon sequestration, pollinator habitat, aesthetic beauty, food and recreation. The landowner receives no compensation for most of these services other than the inner satisfaction they bring.

Conclusion

Land Stewardship is a lot more than pretty flowers, butterfly gardens, beautiful native landscapes, or propagating rare plants. It is the inner attitude of loving the land, understanding the land, respecting the land, and being connected with the land. This connection and love of the land motivates the proper and beneficial care and management of the land.

The upshot is that genuine land stewardship is not just a warm fuzzy emotion or a proclamation of how much a person loves the land. It is more than being a successful agricultural producer, wildlife manager, or native plant enthusiast, and it goes deeper than just doing the normal land improvement practices. A stewardship ethic begins on the inside with an attitude of respect and admiration for the land and it involves the whole person - the mind, the heart and the hands. It is a lifestyle that usually works in

conjunction and harmony with other character qualities that are universally accepted as good. The land steward not only takes care of the land, they also tend to be good people doing good things for the benefit of others.

The Native Plant Society of Texas is a diverse, dynamic, productive and effective organization, with multiple important functions. The core purposes of NPSOT all find their greatest fulfillment and benefit when connected to the true meaning of stewardship. Let us all strive to discover and embody the very best stewardship character in ourselves and encourage it within others.

**A MURKY PATH IN THE RESTORATION OF AQUATIC VEGETATION
IN THE CRYSTAL-CLEAR WATERS OF THE UPPER SAN MARCOS RIVER:
MIXED METHODS AND CONTINUING ADAPTATION
BY CHRISTOPHER L. RIGGINS AND COLLIN J. GAROUTTE**

The Meadows Center for Water and the Environment – Texas State University

The headwaters of the San Marcos River is a thermally stable groundwater system with high levels of endemism, having seven protected species within the first 6.1km. Federal protections and restoration efforts are in place to preserve and improve resiliency of these species including efforts as part of the Edwards Aquifer Habitat Conservation Plan. These aquatic macrophyte populations have been managed and monitored for decades, with restoration efforts increasing in 2013, resulting in significantly reduced non-native and increased native vegetation. These intensive restoration efforts have evolved through adaptive management and are nearing a completion point with functional eradication of targeted species. The resulting ecosystem is a diverse community of aquatic vegetation, providing diverse habitats, natural sediment transport, and more resilient populations of endangered species.



Above is an example of restoration progress showing a non-native dominated section of river (left) that received treatment efforts in 2020, the area after removal efforts in 2021, and a fully recovered area with a diverse native plant community in 2024.

Aquatic habitat restoration efforts in the San Marcos River, as part of the Edwards Aquifer Habitat Conservation Plan, have resulted in a shift from a non-native dominated ecosystem to a diverse mixture of native aquatic vegetation. The Texas wild-rice population has increased almost threefold since these efforts have begun, increasing its resiliency and working towards U.S. Fish and Wildlife Service recovery goals. As of 2024, progress is on track to achieve the goal of functional eradication of non-native aquatic vegetation in the uppermost 6.1 km of the San Marcos River by 2028, being replaced with native species to provide habitat for aquatic organisms. To see more about this effort, please visit our website at:

<https://www.meadowscenter.txst.edu/research/stream-habitat-ecology/eahcp.html>

The EAHCP storymap is also a great source of additional information:

<https://storymaps.arcgis.com/stories/473bb7901749482d94081b233dd738dd>

This progress is only possible due to the continued support of funders, collaborating agencies, and the amazing team of research staff and undergraduate student technicians at Texas State University.

GARDENING FOR NATIVE BEES BY WIZZIE BROWN

Texas Bee Identification Guide

Wizzie Brown¹, Dodie Stillman², Jose Madrigal³, Reed Lievers⁴

1. Texas A&M Agrilife Extension Service
2. Texas Beekeepers Association
3. JMad Images
4. Pollinator Partnership



POLLINATOR
PARTNERSHIP

TEXAS A&M
AGRI LIFE
EXTENSION

Bees are beneficial insects that pollinate flowering plants by transferring pollen from one flower to another. This is important for plant reproduction and food production. In fact, one-third of the nation's food supply depends on pollinators. While the honey bee gets most of the credit for providing pollination, there are actually about 800 bee species in Texas!

Using this guide: This card provides key features needed to identify 12 types of bees found in home landscapes. The approximate size of each bee is listed in millimeters. The following symbols will help along the way:



Common nesting locations.



Identifying aspects or features to watch for.



Additional random facts that help discern differences between bee species.



Jose Madrigal



Jose Madrigal

Bumble bees (*Bombus* spp.)

Family: Apidae, 10-23 mm



Nest: Social; in the ground (abandoned rodent nests), piles of wood, or leaf litter
Description: Medium to large size, very hairy bodies, yellow & black in color, pollen basket on hind legs



Random fact: Able to be active in colder weather than other bees; 9 species of bumble bees in Texas



Jose Madrigal



Jose Madrigal

Sweat Bees:

- Furrow Bees (*Halictus* spp.)
- Metallic Sweat Bees (*Augochloropsis* spp.)
- Striped Sweat Bees (*Agapostemon* spp.)

Family: Halictidae, 3-12mm



Nest: Solitary to social, usually nest in the ground, with a few nesting in rotten wood



Description: Tiny to medium sized, two color forms- metallic OR blackish-brown with pale bands of hair on abdomen, slim bodies, hairs for carrying pollen on hind legs



Jose Madrigal

Jose Madrigal



Jose Madrigal

Large Carpenter Bees (*Xylocopa* spp.) and Small Carpenter Bees (*Ceratina* spp.)

Family: Apidae, *Xylocopa*: 13-30mm
Ceratina: 2-15mm



Nest: Solitary to communal; in wood or plant stems



Description: *Xylocopa* – Medium to large size, dark wings, abdomen lacks hair
Ceratina: Tiny to medium sized, nearly hairless and shiny, metallic blue or green

How to Identify Bees

All bees have three body segments, a **head**, **thorax**, and **abdomen**. The **head** is where large multi-faceted eyes, long slender antennae, and chewing mouthparts are found. The **thorax** is the middle segment where wings and legs attach. Last is the **abdomen**, which for female bees has a stinger.

Special **pollen-carrying hairs** unique to female bees resemble dense broom bristles, and are commonly found on the rear legs or the underside of the abdomen. Some carry pollen in an almost hairless, flattened **pollen basket** on the rear legs.



Jose Madrigal



Jose Madrigal

Leafcutter Bees (*Halictidae* spp.)

Family: Halictidae, 10-20mm



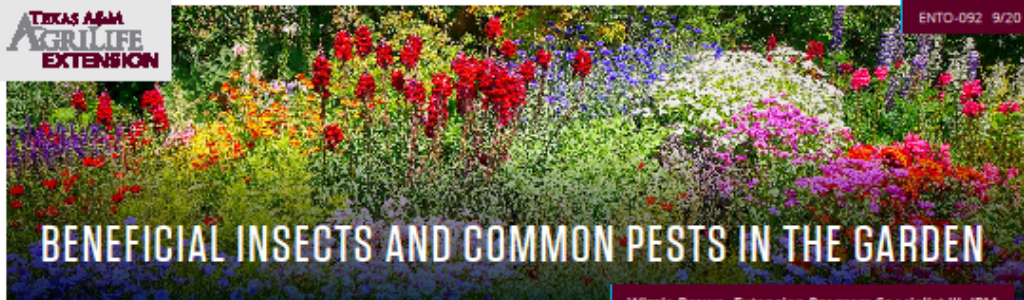
Nest: Solitary; in wood & preexisting cavities, some nest in the ground



Description: Small to large size, dark colored with whitish-yellow hairs and striping on abdomen, fuzzy hairs under abdomen to carry pollen, large mandibles



Random fact: Typically line nursery area with plant material



BENEFICIAL INSECTS AND COMMON PESTS IN THE GARDEN

Wizzie Brown, Extension Program Specialist III-IPM

Predators

- ▶ Predators attack, kill, and feed on numerous organisms within their lifetime.
- ▶ They can be specialized, feeding on one or a few types of prey, or generalists, feeding on whatever they capture.
- ▶ Examples: Beetles (ladybugs, ground beetles, soldier beetles, tiger beetles, rove beetles), true bugs (minute pirate bugs, ambush bugs, assassin bugs, damsel bugs, some stink bugs), flies (hoverfly larvae, robber flies), wasps and ants, lacewings, most earwigs, mantids, some thrips, spiders, and some mites.



Parasitoids

- ▶ Parasitoids are insects that live in, feed on, and kill one host in its lifetime.
- ▶ Parasitoids are usually only parasitic in the immature stage, eventually killing their host to later emerge as an adult.
- ▶ They may specialize in attacking a specific stage of one type of host (i.e., the larvae of beetles) or a certain stage of all insects (i.e., eggs).
- ▶ Examples: Wasps, which have more parasitoids than any other insect order, and flies.

Pathogens

- ▶ Pathogens are parasitic organisms that cause disease and can impair normal activities of the host.
- ▶ Examples: Bacteria (*Bacillus thuringiensis*), fungi (*Beauveria bassiana*), protozoa, viruses, and nematodes (*Steinernema* & *Heterorhabditis*).



Photo by Peggy Greb, USDA Agricultural Research Service, Bugwood.org

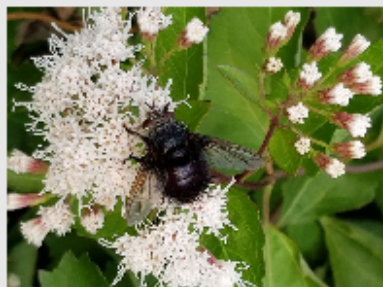


CREATING AN INSECT & POLLINATOR FRIENDLY GARDEN

Wizzle Brown, Extension Program Specialist III-IPM

Plants (food)

- ▶ Provide pollen, nectar, and host plants, including trees and grasses, from spring through fall. Plan for a succession of bloom times using native plants.
- ▶ Plant "clumps" of same-flowering plants. Design the area with multiple types of plants to provide a variety of colors and flower shapes for maximum attraction.
- ▶ Avoid modern hybrids, especially those with "doubled" flowers. These plants may not have pollen, nectar, or fragrance for pollinators.
- ▶ Include larval host plants in the landscape for caterpillars, which turn into butterflies and moths. However, be aware that insects will eat them.
- ▶ Ensure that plants are insecticide-free.



Insect mouthparts determine what types of flowers the insect feeds from:

- ▶ **Tubular** – Butterflies and moths, some bees, and hummingbirds.
- ▶ **Ray/flat** – Beetles, bees, and flies. These can also serve as resting places for butterflies and moths.
- ▶ **Umbels** (flat-topped clusters of tiny funnel-shaped flowers) – Bees, flies, wasps, small butterflies and moths, and beetles.
- ▶ **Others** (funnel, whorled, bilabiate, and shallow bell shapes) – Bees, flies, wasps, and some beetles.

Host plants

- ▶ Essential for survival of certain butterfly and moth species
- ▶ Specific to individual species

Helpful resources are found at:

- ▶ <https://agrillifeextension.tamu.edu/solutions/butterfly-gardening/>
- ▶ www.wildflower.org/collections/
- ▶ <http://xerces.org/milkweed-seed-finder/>
- ▶ https://www.fs.fed.us/wildflowers/pollinators/documents/AttractingPollinatorsEasternUS_V1.pdf



SECTION THREE: PRESENTATION FILE LINKS

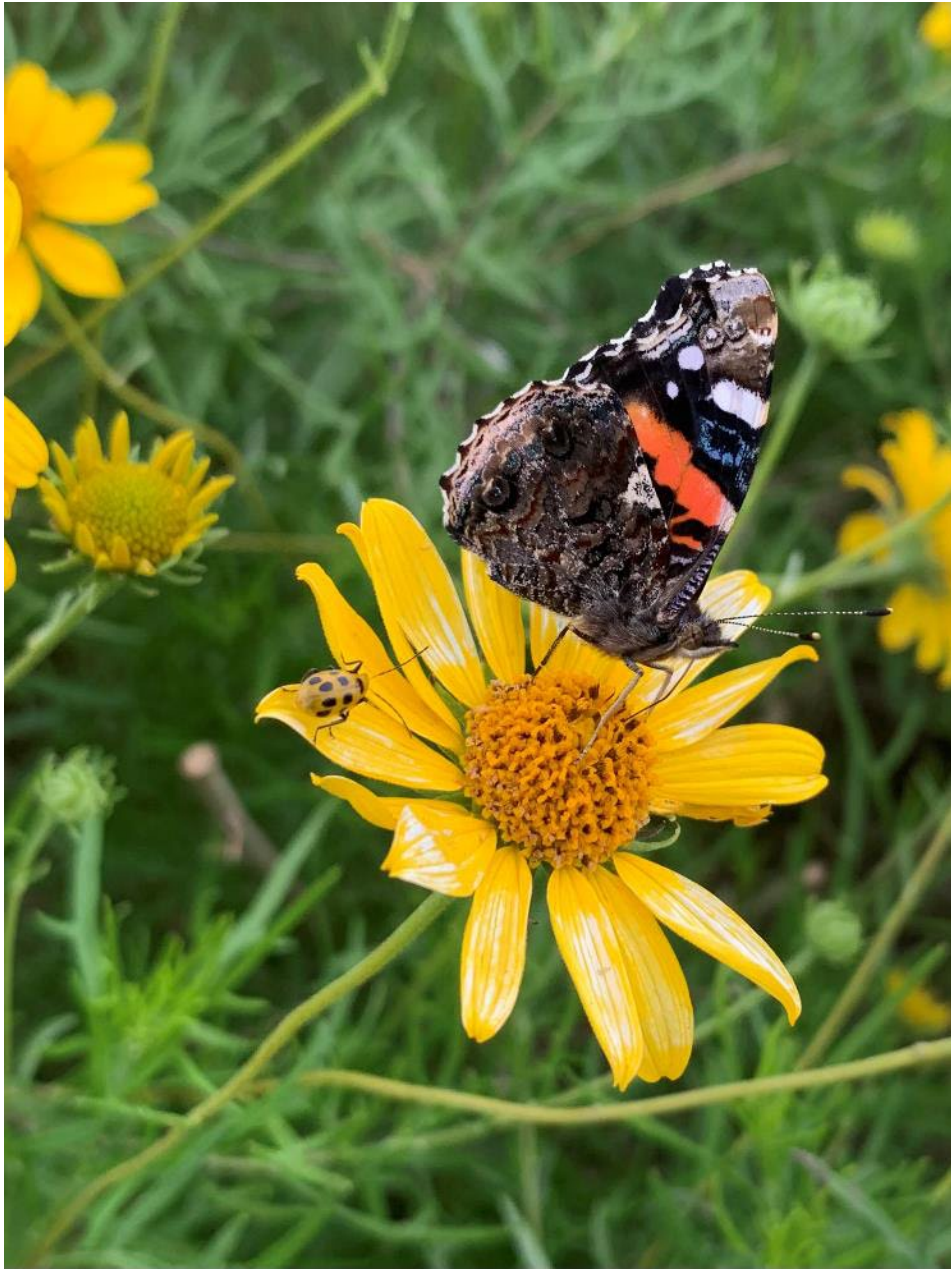


Photo Credit: Briana Rouse, Sidneya tenuifolia, Texas Blackland Prairies

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CHALLENGES AND OPPORTUNITIES IN TEXAS' FASTEST GROWING COUNTIES BY ANNALISA PEACE

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NICE PROGRAMS: TIPS AND TOOLS TO START A NEW PROGRAM OR BOOST AN EXISTING ONE BY CLAIRE SORENSON

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MOUNTAIN CEDARS: JUNIPERS THAT BENEFIT LIMESTONE GROUNDWATERS BY ELIZABETH MCGREEVY

https://www.dropbox.com/scl/fi/p0dnyd3clniu438tzdcq/Elizabeth-McGreevy-Presentation-File_NPSOT-FS-2024.pdf?rlkey=ho9y8syt13rd2q5fri13xf3sk&st=sdwdgkbe&dl=0

LESSONS IN RESTORATION: TRANSFORMATION OF A RETIRED UTILITY PROPERTY INTO A TEXAS TREASURE BY NANCY PAPPAS

https://www.dropbox.com/scl/fi/5ttkkgoy9et0udmq6bjl1/Nancy-Pappas-Presentation-File_NPSOT-FS-2024-1.pdf?rlkey=0bqvwwqko680m7ws7zgnvpsj9x&st=2vs4aegh&dl=0

POCKET PRAIRIE DESIGN AND INSTALLATION BY JOHN HART ASHER

https://www.dropbox.com/scl/fi/27x31s6kyyuat2pkvj5xo/John-Hart-Asher-Presentation-File_NPSOT-FS-2024.pdf?rlkey=gcnebha48pcd3eoxsus471k6q&st=k9uoairf&dl=0

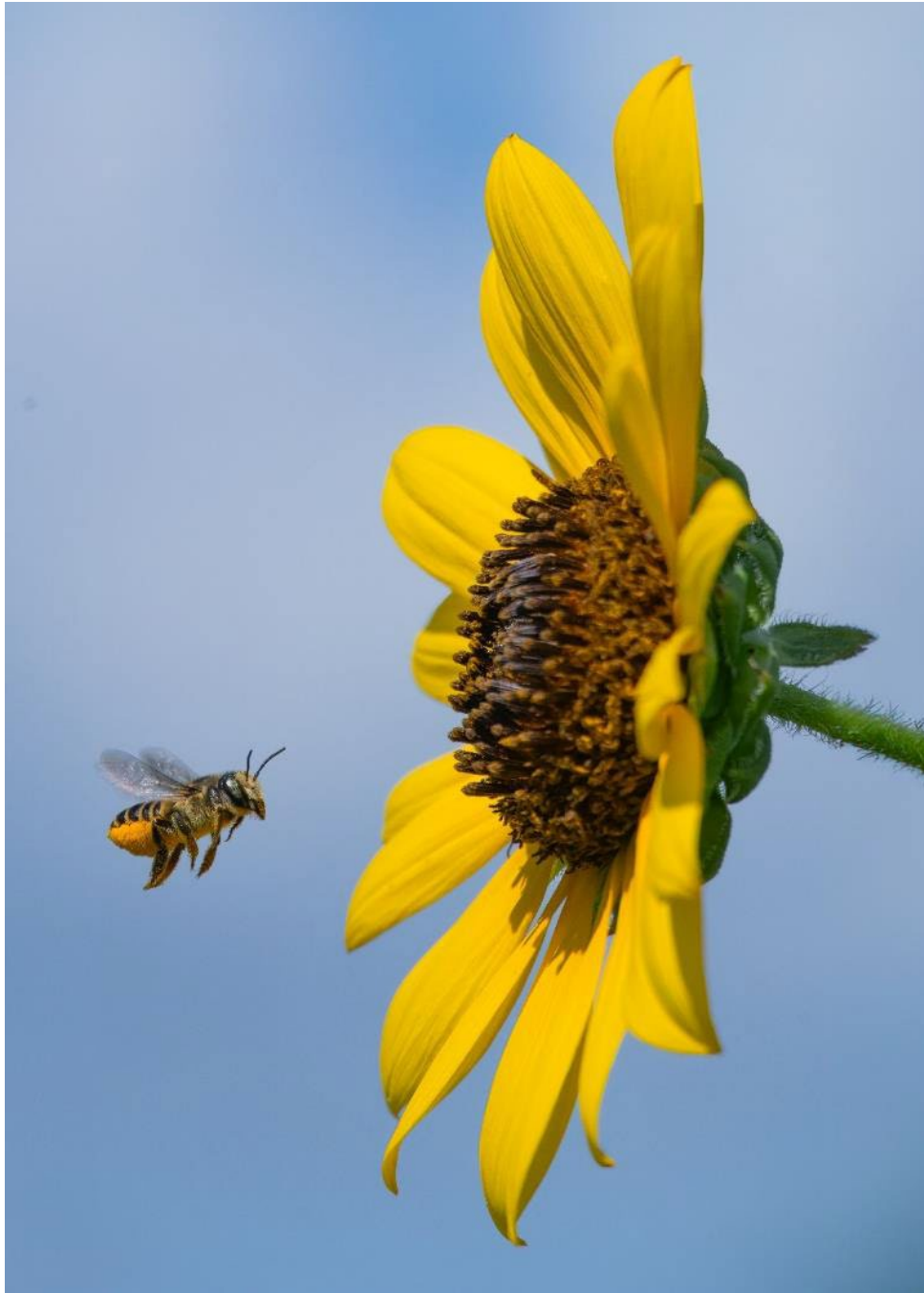
DEVELOPING NATURALLY: HOW NATIVE LANDSCAPES CREATE RESILIENT COMMUNITIES BY SUZANNE SCOTT

https://www.dropbox.com/scl/fi/ayh39gud9b7e080x51679/Suzanne-Scott-Presentation-File_NPSOT-FS-2024.pdf?rlkey=z7xrw38dtaoojcdotsw7dosc3&st=sny73tsz&dl=0

CREATING SUSTAINABLE OUTDOOR LIVING SPACES HOW TO CONVERT YOUR LAWN TO NATIVE TURF BY WESTON NEIMAN

https://www.dropbox.com/scl/fi/or0a598xqgcgd63t4xjm4/Weston-Neiman-Presentation-File_NPSOT-FS-2024.pdf?rlkey=zwzsk1woa8foqdvzq1k1j8vo7&st=dxh7qry3&dl=0

SECTION FOUR: SPEAKER BIOS



*Photo Credit: Jose Madrigal, Texas Blackland Prairies, Helianthus annuus;
Texas Blackland Prairies Photo Contest Winner*



ANDREA DELONG-AMAYA

Presentation

Making the Most Out of Native Plants in Cultivated Spaces

Native plants in private landscapes fill a critically important ecological role and bolster our botanical heritage during this age of habitat destruction. For some of us, doing the “right thing” to preserve biodiversity is enough, but to bring more folks into our tent, it is critical that native plants are pleasing to people, too. This talk will describe how to use central Texas natives in a range of garden styles from wild to formal, as well as how to create a dynamic landscape with plants that can serve a variety of needs including sunny or shady areas, lawns, containers, water gardens, wildlife, maximizing plantings for all seasons, and even natives that feed people.

Bio

Andrea DeLong-Amaya oversees the Lady Bird Johnson Wildflower Center’s gardens and nursery programs and is passionate about sharing the value of native plants in planned landscapes. She’s been a staff member since 1998 and has over 30 years of experience with Texas native plants in horticulture, ecology and garden design. She teaches classes in native plant horticulture and has contributed numerous gardening articles to publications such as Taunton’s Fine Gardening, Rodale’s Organic Gardening, American Public Gardens Association’s Public Garden, Neil Sperry’s Gardens and e-Gardens, Texas Gardener and Wildflower (the Center’s member magazine). Keep an eye out for her upcoming book, *Texas Native Plant Primer*, to be published by Timber Press in March of 2025. DeLong-Amaya has appeared numerous times on *Central Texas Gardener*, PBS’s long-running television program, and was a two-time guest on WNYC’s *Science Friday*. Jennifer Jewell featured Andrea’s work in her 2020 book, *The Earth in Her Hands: 75 Extraordinary Women Working in the World of Plants*, and interviewed DeLong-Amaya on the podcast *Cultivating Place*. OTHER INTERESTS: Gardening (go figure!), botanizing, traveling, scratching on a violin, languages, Ashtanga yoga



ANDY BLAIR

Presentation,

Building Climate Resiliency from the Soil Up

This talk will delve into the relationship of plants with the living soil and will describe how we can make our landscapes and gardens more resilient to climate variability by focusing on improving the health of our soil.

Bio

Andy Blair is a plant-centric ecologist and conservation biologist with over 20 years experience studying Texas plant communities and considerable experience with Texas insects, freshwater mussels, birds, and herptofauna. He also has a burgeoning interest in soil ecology and a fascination with complex systems and how to work with Nature to solve complex problems. Andy holds a BS in Biology from the University of Mary Hardin-Baylor and an MS in Population and Conservation Biology from Texas State University. He has a passion for learning about the great diversity of native plants, insects, and other living creatures that call our area home and loves to share that knowledge with others.



ANNALISA PEACE

Presentation,

Challenges and Opportunities in Texas' Fastest Growing Counties

Annalisa will talk about what's happening to water availability and quality in the Comal-Hays-Kendall county region caused by the explosive growth the counties are experiencing.

Bio

Annalisa Peace holds an MS in Urban Administration from Trinity University and has over thirty years' experience working with government and non-profit organizations in a variety of capacities, including as a San Antonio City Council Aide, Public Information Officer for the City of San Antonio's Office of Cultural Affairs, Executive Director of Youth Orchestras of San Antonio, and Director of Development of the Carver Community Cultural Center. She has been instrumental in organizing citizens' campaigns and has served on many governmental advisory boards, including as co-chair of the Kelly Air Force Base Restoration Advisory Board, the City of San Antonio Open Space Advisory Board, the City Task Force that drafted San Antonio's water quality rules, the Southern Edwards Plateau Habitat Conservation Plan, the Edwards Aquifer Recovery Implementation Program, and the City of New Braunfels Technical Committee for Stormwater Planning, and the City of New Braunfels Master Plan Committee for Water and Natural Resources. Since 2004, Ms. Peace has been the Executive Director of the Greater Edwards Aquifer Alliance, which unites 58 organizations throughout a 21 county region in Central and South Texas behind a plan to protect the Edwards and Trinity aquifers, their contributing watersheds, and the Texas Hill Country. She currently serves on the Texas Water Development Board's Regional Flood Planning Group for the Guadalupe watershed, the City of San Antonio's Water and Natural Resources Stakeholder Group for the Climate Action Plan, the Environmental Advisory Committee of the San Antonio River Authority, the Steering Committee of the Texas Hill Country Conservation Network, UTSA Urban Planning Advisory Committee, the Camp Bullis Sentinel Landscape Project, and participates in many other efforts to maintain the environmental integrity of our region.



ASHLEY LANDRY

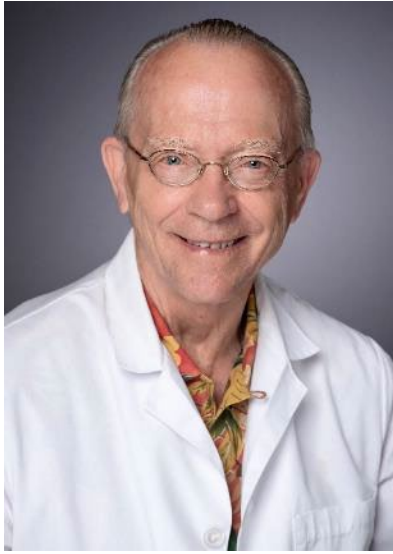
Presentation,

Rescuing Native Plants in a Time of Rapid Development

Development is a constant in Central Texas. The Native Plant Rescue Project works with landowners to ethically rescue uncommon native plants ahead of construction. Learn how we maximize the impact of plant salvage through conservation, propagation and habitat creation projects.

Bio

Ashley Landry is a Texas Master Naturalist and the founder of the Native Plant Rescue Project. She has been featured in Wildflower magazine, The Austin Chronicle, Central Texas Gardener and the Liberty Hill Independent. She is an avid iNaturalist user and enjoys spending her free time botanizing.



BARNEY LIPSCOMB

Director of BRIT Press and Library

Presentation,

Discovering and Preserving Texas' Botanical Heritage: Good for Science, Good for Conservation

The 19th Century ushered into Texas a wave of zealous naturalists who labored tirelessly in the great age of discovery. Notable Texas expeditions occurred in the Rolling Plains/High Plains (James 1820), the South Texas Plains (Berlandier 1828–1834), Lower Portions of the Post Oak Savannah and Blackland Prairies (Drummond 1833–1834), Edwards Plateau (Lindheimer 1836–1879), Pineywoods, Gulf Prairies & Marshes, lower portions of the Post Oak Savannah, and Trans-Pecos (Wright 1837–1852), and finally the Blackland Prairies and Cross Timbers and Prairies of North Central Texas (Reverchon 1848–1905). These early sojourners gave science a wealth of herbarium specimens which represent an important source of knowledge about Texas' biodiversity. The 20th Century marshaled in a new era of collecting and botanists who made new observations and discoveries. Collecting habits in Texas ebbed and flowed over the years—slowing down during the Civil War, then increasing afterwards, then decreasing at the turn of the century, and finally peaking in the late 1900s. A current decline of plant collecting continues into the 21st century but at what price? Herbarium specimens are a gold mine of information; deciphering the information is good for science and good for conservation in the 21st century. Collections are leading the way to advances in plant science and conservation (Funk pers. comm. 2016). We will examine herbarium collections to 1) map under-collected areas in Texas, 2) look at the rate of plant collecting in the 21st century, and 3) identify areas of Texas in need of further exploration and collecting.

Bio

Short Biographical Sketch of Barney L. Lipscomb, Dorothea L. Leonhardt Chair of Texas Botany, Fort Worth Botanic Garden | Botanical Research Institute of Texas, Fort Worth, Texas:

Barney L. Lipscomb, editor, author, writer, public speaker, and researcher, is the Leonhardt Chair of Texas Botany at the Botanical Research Institute of Texas. He is from Temple, Oklahoma. He attended Temple High School (1968); Cameron University, Lawton, Oklahoma (B.S Biology, 1973); and the University of

Arkansas, Fayetteville (M.S. Botany, 1976). He began his career in 1975 at Southern Methodist University (SMU) in Dallas Texas as the herbarium botanist. Soon after his arrival at SMU, he became assistant editor of a botanical journal *Sida*, now called *Journal of the Botanical Research Institute of Texas*. Barney is presently working at the Botanical Research Institute of Texas (BRIT) in Fort Worth, and was appointed the Dorothea L. Leonhardt Chair of Texas Botany in February 2001. He is now Director of BRIT's scientific press. Mr. Lipscomb is one of the co-authors of the "Illustrated Flora of North Central Texas" (1999), a 1640 page, fully illustrated, comprehensive guide to a large portion of the diverse plant life of Texas. Lipscomb is also a co-author of a three-volume flora, the "Illustrated Flora of East Texas." [Vol. 1, 2006, 1612 pp]. He is co-author of the 392 page, *Ferns and Lycophytes of Texas* (Feb 2014). In addition, he has authored another 30 scientific publications. Barney has an interest and expert knowledge of poisonous plants, and has given many lectures and talks on the subject; he serves on the board for the North Texas Poison Center, as a member of the board of consultants. He enjoys teaching about botany at schools and being called "Barney the Botanist." Barney also has an interest in forensic botany, and has provided expertise and assistance in several criminal cases. Mr. Lipscomb has appeared in many newspaper, radio, and television pieces on botany. In summary, Mr. Lipscomb has lectured, demonstrated, guided, taught, trained, educated, explained, and described plants and botanical science to just about every conceivable nonscientist and scientists alike. From pre-kindergarten to retired individuals to colleagues, Barney Lipscomb has shared his enthusiasm and passion for plants through personal contact with thousands of individuals. In 2010, he received the American Society of Plant Taxonomists' Peter Raven Award for exceptional outreach activities that advance the public's understanding of plant systematic work and its value to society.



BILL NEIMAN

Native American Seed

Presentation,

Panel Speaker: Independent Growers – History, Challenges, Solutions – 2022 Fall Symposium Sequel

At the 2022 Fall Symposium in Alpine, Texas, we began a discussion about the difficulty of getting a greater quantity and diversity of native plants into the hands of Texans. The question became: What can the Native Plant Society of Texas do to further the cause of native plant growers? We had some ideas: provide internships for people who want to grow native plants or help others do the same, make land available to those who might want to grow and sell native plants, and bring growers together to discuss roadblocks and solutions. The panel is a chance to re-assess where the Society stands and give a progress report to the members. Next steps and additional opportunities will be captured during the session.

Bio

Bill Neiman started his first company, Neiman Environments Landscape Construction Company, in 1974 when he was nineteen years old. He borrowed a shovel, a rake, and lawn mower and advertised in the local garbage collector's monthly billings offering "total outdoor care." Six years later the company was big enough to take on large-scale commercial projects. From 1979 to 1990, Bill also operated Neiman's Native Plant Nursery in Flower Mound, Texas, one of the first outlets for native plants in the North Central Texas area. He also farmed numerous sites certified by the Texas Department of Agriculture for organic food and seed production. In 1989, Native American Seed was formed to specialize in the harvest and sale of wildflower seeds and prairie grasses native to the Texas-Oklahoma-Louisiana bioregion. Each year Native American Seed provides thousands of pounds of wildflower seeds to the Texas Department

of Transportation for use in highway beautification programs. Bill says, "In today's economic realities, the only sensible approach to effective land management is with the use of native species for vegetation. Take a 'holistic' approach; include the conservation and care of all the natural resources including land, water and air, and use organic cultivation methods where possible. Recognize that public education is an integral part of restoring and maintaining the health of the environment, and whenever possible design a significant educational component into the projects you undertake." The company headquarters was moved in 1995 to Junction, Texas on the western edge of the Texas hill country. Growing operations are being expanded and new opportunities for restoration and education are being pursued.



CHRISTOPHER RIGGINS

Wildlife & Fisheries Biologist – The Meadows Center for Water and the Environment

Presentation,

Co-Presenter: A murky path in the restoration of aquatic vegetation in the crystal-clear waters of the Upper San Marcos River: mixed methods and continuing adaptation.

The headwaters of the San Marcos River is a thermally stable groundwater system with high levels of endemism, having seven protected species within the first 6.1km. Federal protections and restoration efforts are in place to preserve and improve resiliency of these species including efforts as part of the Edwards Aquifer Habitat Conservation Plan. These aquatic macrophyte populations have been managed and monitored for decades, with restoration efforts increasing in 2013, resulting in significantly reduced non-native and increased native vegetation. These intensive restoration efforts have evolved through adaptive management and are nearing a completion point with functional eradication of targeted species. The resulting ecosystem is a diverse community of aquatic vegetation, providing diverse habitats, natural sediment transport, and more resilient populations of endangered species.

Bio

Christopher Riggins is an US Army veteran that received a B.S. in Aquatic Biology from Texas State University in 2018. He began working on aquatic restoration activities as an undergraduate in 2015, and transitioned into a research staff position at The Meadows Center for Water and the Environment after graduation. His nine years of experience include aquatic vegetation restoration efforts in the Upper San Marcos River, aquatic invasive species research, habitat suitability assessments, and mussel reintroduction studies. He employs skills in geospatial analysis, drone technology (remote sensing), SCUBA diving, and adaptive management planning to lead a team of staff, students, and volunteers in the successful restoration of submerged aquatic vegetation. He is currently pursuing a M.S. in Aquatic Resources at Texas State focusing on the impacts of drought, recreation, and restoration activities on aquatic vegetation community dynamics within the San Marcos River.



CLAIRE SORENSON

NPSOT NICE Program Chair, NPSOT Native Plant Database Subcommittee

Presentation,

NICE Programs: Tips and Tools to Start a New Program or Boost an Existing One

The NICE Native Plant Partner program is a collaboration between the Native Plant Society of Texas and local nurseries around the state to offer native plants that are right for the local environment. NICE Partner committees, run by our local chapters, highlight native plants in cooperation with participating local nurseries and wholesalers in order to assure availability. The NPSOT chapter then helps promote native plant sales at the nursery by providing signs, plant information at the point of sale, advertising on its website, and assisting with onsite plant sale events. In the last two years, the NICE Program has added 10 new chapter programs, and 15 new nursery partners. Join us to learn how to start a new program in your area or boost your current one. I will share some tips and tools to help promote your NICE Program. Our State Level NICE Committee is here to help.

Bio

Chair of NICE Program. Master Naturalist Canyonlands Chapter. Masters in Plant Ecology, University of South Dakota. I live on 3 acres on the edge of South Austin. I love creating habitat for wildlife and encouraging others to do the same. I also work with the NPSOT Plant Database and HEB Initiative teams. When not volunteering for NPSOT my husband and I love to travel and post photos of wildlife to iNaturalist.



COLLIN GAROUTTE

Wildlife and Fisheries Biologist for The Meadows Center for Water and the Environment at Texas State University

Presentation,

Co-Presenter: A murky path in the restoration of aquatic vegetation in the crystal-clear waters of the Upper San Marcos River: mixed methods and continuing adaptation

The headwaters of the San Marcos River is a thermally stable groundwater system with high levels of endemism, having seven protected species within the first 6.1km. Federal protections and restoration efforts are in place to preserve and improve resiliency of these species including efforts as part of the Edwards Aquifer Habitat Conservation Plan. These aquatic macrophyte populations have been managed and monitored for decades, with restoration efforts increasing in 2013, resulting in significantly reduced non-native and increased native vegetation. These intensive restoration efforts have evolved through adaptive management and are nearing a completion point with functional eradication of targeted species. The resulting ecosystem is a diverse community of aquatic vegetation, providing diverse habitats, natural sediment transport, and more resilient populations of endangered species.

Bio

Currently serving as a Wildlife and Fisheries Biologist for The Meadows Center for Water and the Environment at Texas State University, Collin Garoutte has conducted and subsequently managed restoration efforts for the Edwards Aquifer Habitat Conservation Plan since 2015: a program aimed at the preservation of federally listed species through the establishment of native macrophyte communities within the Upper San Marcos River. This task has required the manual removal of non-native species, the propagation of native species – including Texas wild-rice, and the ability to identify aquatic and riparian plants to achieve goals set forth by the plan. In addition to the EAHCP, restoration efforts have also been conducted on behalf of the Office of Sustainability at Texas State University, alongside the Southeastern

Aquatic Resources Partnership, and through the TPWD Angler Access Program to mitigate to species that are unmanaged and extend wild-rice populations beyond its current extent respectively. Research objectives have also parallel conservation efforts and will be enhanced through the pursuit of a PhD focusing on fluvial geomorphology this fall, building on the experiences gained from years spent within the San Marcos River.



CRAIG DALTON

NPSOT Webmaster

Presentation,

Using Digital Tools for Communication Across our Society

Explore the power of social media and websites to connect with plant enthusiasts, share knowledge, and advocate for native plants. Transcend geographical and cultural boundaries by showcasing native plants in landscapes and gardens with appealing visuals, helpful information, and engaging narratives. By curating and disseminating educational content, we engage and empower our community, with each chapter adding its unique voice to the shared mission of the Society.

Bio

Craig is webmaster for NPSOT. He is relatively new to native plants and learned most of what he knows through the NLCP classes. He is passionate about restoring several acres of the Edwards Plateau in Spicewood using native plants to create a native sanctuary in the midst of encroaching development. He is a member of the Austin chapter. He continues to learn more about native plants every day and loves sharing his knowledge.



CRAIG HENSLEY

Presentation,

A Naturalist's Guide to the Native Plants of Our Local Ecoregions

Join Naturalist and Educator Craig Hensley for an introduction to the diversity of native plants of the Balcones Canyonlands to the Southern Blackland Prairie and Southern Post Oak Savanna. You'll learn not only who's who, but how they interact with native pollinators as well as selected natural history of specific species.

Bio

Craig Hensley is a lifelong naturalist and educator, sharing his passion for, and love of, the natural world to all who are willing to join the adventure of learning. He served professionally as an Interpretive Naturalist for more than 30 years from Iowa and Minnesota to Nebraska, Missouri, and Kansas. He holds a B.S. in Fisheries and Wildlife Management and a M.S. in Zoology. His interests range from birds and butterflies to bees and growing native plants. For the past nearly 14 years he has worked for Texas Parks and Wildlife, currently in the roll of Texas Nature Trackers Biologist. He is father to two adult children and grandpa to four granddaughters and one grandson.



DENNIS PERZ

Owner, Georgetown Pecan Company, Georgetown TX

Presentation,

Soil improvement Using Sustainable Management Practices

We describe our journey taking an ill-advised soil type and location to building a successful pecan business using sustainable methods and emphasizing natural processes.

Bio

About: Dennis and Marilyn Perz own and operate the Georgetown Pecan Company. They have operated this business starting from scratch and Dennis' near total ignorance of pecans, farming, soil, tractors, etc. After a 32 year career as a professional engineer working at NASA and The Dow Chemical Company, they "retired" early, bought this orchard property but then decided to live on a better property for nurturing and enjoying natives. On the spur of the moment, Dennis decided to try his hand at growing pecans. The orchard had been planted by others; the site was ill-chosen for many reasons. But an 18 year collaboration with Betsy Ross Builta based on soil food web principles from Elaine Ingham has turned this into a consistently profitable orchard. We are currently working under the rubric of Regenerative Ag principles with context defined by our sustainable business model. Key elements of sustainability are minimum inputs and maximum dependence on natural processes. In 2022 we were recognized as the Small Grower of the Year by the Texas Pecan Growers Association for our focus on soil health and sustainable management practices. Dennis and Marilyn are long time members of the Williamson County chapter.



DONALD GERBER

Owner, Pollinatives

Presentation,

Panel Speaker: Independent Growers – History, Challenges, Solutions – 2022 Fall Symposium Sequel

At the 2022 Fall Symposium in Alpine, Texas, we began a discussion about the difficulty of getting a greater quantity and diversity of native plants into the hands of Texans. The question became: What can the Native Plant Society of Texas do to further the cause of native plant growers? We had some ideas: provide internships for people who want to grow native plants or help others do the same, make land available to those who might want to grow and sell native plants, and bring growers together to discuss roadblocks and solutions. The panel is a chance to re-assess where the Society stands and give a progress report to the members. Next steps and additional opportunities will be captured during the session.

Bio

Donald and Melanie Gerber are the owners of Pollinatives, a Texas native specialty plant nursery serving San Antonio and surrounding areas. Opened in 2023, Pollinatives strives to have the best selection of Texas native plants in Central Texas.



ELIZABETH MCGREEVY

Program Director, Project Bedrock

Presentation,

Mountain Cedars: Junipers that Benefit Limestone Groundwaters

For almost 100 years, we've been fighting the woody brush spreading across Texas karst country (limestone bedrock + shallow soils). Much of this woody cover consists of mountain cedars, species of juniper trees that prefer limestone soils. We've been taught these trees cause harm. But, instead of causing harm, we recently learned there's a deep connection between mountain cedars and the limestone bedrock beneath our feet. Whereas the bushy pioneer thickets act as nature's ecosystem engineers to regenerate degraded karst country, the old-growth cedar forests sustain groundwaters, healthy soils, deep carbon storage, and biodiversity, and reduce fire risk. You will learn how to identify karst country, why we need to start using mountain cedars and other nature-based solutions to help regenerate these lands, and management basics.

Bio

Elizabeth McGreevy is an ecologist, author, permaculture planner, painter, and sixth-generation Texan. With over 20 years of experience, her company, Land Steward, produces site-specific ecosystem management plans for Hill Country landowners. As the author of *Wanted! Mountain Cedars, Dead and Alive*, Elizabeth teaches that mountain cedar trees (limestone junipers) regenerate and sustain Texas karst country soils, groundwaters, and biodiversity. In 2022, she founded Project Bedrock, now in partnership with The Watershed Association, to continue teaching that mountain cedars are part of the solution, not the problem. She serves as program director, provides presentations and testimonies, and has begun working on a mountain cedar-focused decision support tool for landowners.



Native
Plant
Society
of Texas



ERIC STRICKLAND

Presentation,

Invading Our Native Space: Plant Armies From Beyond the Realm

While some of them may be “pretty”, the impact invasive plant species have on our Texas native plants, insects and birds is anything but pretty. From crowding out native species, to polluting rivers and streams to killing some birds, invasive plants can be a menace. Some, like Bastard Cabbage, march across the landscape, shading out native Bluebonnets much like an invading army – they take no prisoners and our native species suffer. This presentation will introduce you to some of the most invasive plant species and will discuss steps you can take to go to war with them.



HAELEY GIAMBALVO

Owner of Native Backyards; Native Plants in Schools Committee Chair

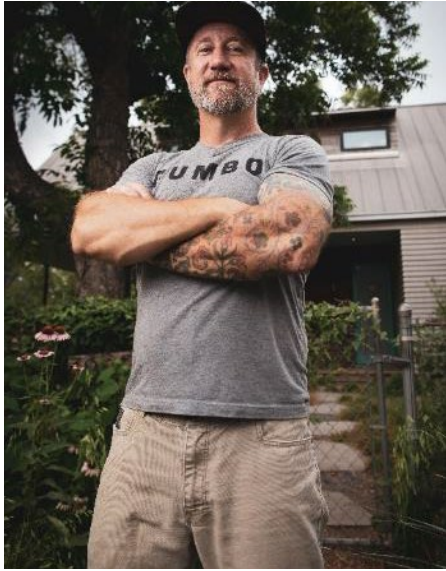
Presentation,

Native Plants in Schools Program

Learn how NPSOT is working to help schools incorporate native plants into their schoolyards and engage students through native plant-related activities and curriculum. See examples of collaborations between chapters and their local schools, and learn how your chapter can help encourage more schools to grow Texas native plants!

Bio

Haeley Giambalvo is a Texas Master Naturalist, and board member of the Native Plant Society of Texas – San Antonio chapter. A professional blogger and online content creator for the past decade, Haeley launched NativeBackyards.com in 2020 to encourage people to help the Earth from their own yards by growing native plants that support insects and wildlife and conserve water. Over the last four years, Haeley has transformed her San Antonio backyard with Texas native plants and turned it into a haven for butterflies, bees, and birds while helping thousands of native plant newbies make small but impactful changes to their own yards. Her book “Native Plant Gardening for Beginners” is available on Amazon.



JOHN HART ASHER

Principal/Senior Environmental Designer Austin, TX

Plenary Presentation,

Pocket Prairie Design Design and Installation

Much of the United States was once covered in grassland plant communities. We are just now grasping the scale of this coverage and how much of a role these ecotypes played in sequestering carbon, cleaning water and air, and providing vital habitat for other species. Furthermore, the medical community has established that human health and well being is exponentially increased when we surround ourselves with biodiversity. John Hart will discuss techniques for designing and installing pocket prairies so that you can help save the world!

Panel Moderator,

Independent Growers – History, Challenges, Solutions – 2022 Fall Symposium Sequel

At the 2022 Fall Symposium in Alpine, Texas, we began a discussion about the difficulty of getting a greater quantity and diversity of native plants into the hands of Texans. The question became: What can the Native Plant Society of Texas do to further the cause of native plant growers? We had some ideas: provide internships for people who want to grow native plants or help others do the same, make land available to those who might want to grow and sell native plants, and bring growers together to discuss roadblocks and solutions. The panel is a chance to re-assess where the Society stands and give a progress report to the members. Next steps and additional opportunities will be captured during the session.

Bio

John Hart Asher has over 14 years' experience designing and building functional ecosystems within urban conditions. He has conducted basic research in ecological engineering, ecological restoration, and land management, offered workshops to professionals and the general public, and provided fee-supported ecological consulting expertise to clients across the United States.

As part of Blackland Collaborative's consulting, John Hart works with integrated design teams composed of engineers, architects, landscape architects, and developers to optimize the sustainable design strategies and ecological components for landscape designs. He specializes in translating sustainable design into successful projects that provide varying layers of ecosystem services. His main interest is the application of ecological design, resulting in functional sustainable landscapes within urban ecologies. A few of his current projects include: Tall grass prairie restoration in an urban riparian corridors, green roof research and implementation, water conservation through the incorporation of LID (Low Impact Development) and vernal pools, soil remediation, and green infrastructure.

John Hart also worked on green roof design and implementation for Bercy Chen Studio's Edgeland House, which was featured in Dwell and Texas Architect magazines and has won several awards, including Architizer's A+ Jury and Popular Choice Awards, the 2016 Design Award of Excellence from Green Roofs for Healthy Cities and the Texas Society of Architects 2016 Design Award. Edgeland House was also featured in Phaidon's "Elemental Living: Contemporary Houses in Nature," and most recently was documented in AppleTV's HOME series that explores exemplary and innovative designs. He holds a bachelor's in history from the University of Mississippi and a master's in landscape architecture from The University of Texas at Austin, which awarded him a President's Outstanding Staff Award in April 2018. In 2019 he also stepped in to serve as host of the award winning and nationally syndicated PBS show, Central Texas Gardener. Some of his pocket prairie projects will be featured in upcoming books from Gardenista and Texas gardening author, Pam Penick.

A dedicated environmental professional who specializes in bridging design concepts and ecological function and demonstrates strong project management skills with the proven ability to design, assess, and investigate landscape restoration installations, performance, and measures. He has carried out research and development of green roof technology with the aim of improving performance and application within semi-arid, sub-tropical climates, and has helped design and build numerous native prairie green roofs all over the state of Texas.



MANDY PIXLER

Tree Grower/Sales – Native Texas Nurser

Presentation,

Panel Speaker: Independent Growers – History, Challenges, Solutions – 2022 Fall Symposium Sequel

At the 2022 Fall Symposium in Alpine, Texas, we began a discussion about the difficulty of getting a greater quantity and diversity of native plants into the hands of Texans. The question became: What can the Native Plant Society of Texas do to further the cause of native plant growers? We had some ideas: provide internships for people who want to grow native plants or help others do the same, make land available to those who might want to grow and sell native plants, and bring growers together to discuss roadblocks and solutions. The panel is a chance to re-assess where the Society stands and give a progress report to the members. Next steps and additional opportunities will be captured during the session.

Bio

I am the head tree grower at Native Texas Nursery in Austin, Texas where I have been for over 8 years. I hold a BS in Plant and Soil Science from Texas Tech University, where my passion for native plants began. I am a native Texan and care deeply for our state's rich and diverse ecosystems. I am dedicated to cultivating and promoting Texas's flora by combining my academic background with practical expertise to enhance our local landscapes sustainably. When I am not at work, I enjoy hikes, roadside botanizing, and tending to my vegetable beds at home with my husband, two children, and garden buddy, Freyja (a 100 pound Labradane).



MICHAEL EASON

VP of Conservation, San Antonio Botanical Garden

Presentation,

Panel Speaker: Independent Growers – History, Challenges, Solutions – 2022 Fall Symposium Sequel

At the 2022 Fall Symposium in Alpine, Texas, we began a discussion about the difficulty of getting a greater quantity and diversity of native plants into the hands of Texans. The question became: What can the Native Plant Society of Texas do to further the cause of native plant growers? We had some ideas: provide internships for people who want to grow native plants or help others do the same, make land available to those who might want to grow and sell native plants, and bring growers together to discuss roadblocks and solutions. The panel is a chance to re-assess where the Society stands and give a progress report to the members. Next steps and additional opportunities will be captured during the session.

Bio

Michael Eason joined the San Antonio Botanical Garden in 2017 as the Center for Plant Conservation representative guiding the South Texas rare plant conservation efforts. In 2022 he moved to full time to continue to develop their rare plant conservation program and curate the living collections, focusing on native plants of Texas and northern Mexico. Michael brings over twenty years of experience as a conservation botanist, with extensive knowledge of the flora and ecology of the southwest region of the U.S. Previously, Michael worked for the Lady Bird Johnson Wildflower Center, where he managed their conservation and field survey programs. Through his consulting business, Texas Flora, he designs and installs native plant gardens, as well as performs plant inventories, wetland delineations, and rare plant surveys on public and private lands. In 2018, he published *Wildflowers of Texas* and is currently working on several other book projects. Additionally, he has served on the State Executive Board for the Native Plant Society of Texas and is currently the State Botanist for the organization.



NANCY DENMARK

Presentation,

Milkweed Propagation Demonstration Workshop

Nancy will give a thorough live demonstration of the propagation method in her NPSOT fall symposium workshop covering all the products and steps from seed preparation, germination, sprout harvesting, planting and growing instructions. Come prepared to take notes. Participants will receive native milkweed seeds and the growing medium to start the Cold Moist Stratification (CMS) process along with a printed outline of the steps they'll learn in the workshop.

Bio

Nancy Denmark is an experienced butterfly gardener, dedicated to teaching about butterflies, their lifecycles, the host and nectar plants to attract them, and the array of insects that make up a healthy ecosystem in the home garden. After learning a proven native milkweed seed propagation method developed by Barbara Keller Willy, Nancy has been committed to teaching the method under Barbara's continued tutelage. Nancy has been teaching the method online through her Facebook groups since 2019, leading 100's of members each year to successfully grow native milkweeds. She offers an annual native milkweed guided grow out group experience in Joys of Butterfly Gardening SE Texas using specific products and offering detailed instructions and coaching. Using this method, Nancy has successfully grown native milkweeds to establish her own butterfly habitat that now supports a healthy migratory monarch population.



NANCY PAPPAS

Managing Director, Headwaters at the Comal

Presentation,

Lessons in Restoration: Transformation of a Retired Utility Property into a Texas Treasure

What is the process for transforming that underutilized empty lot or retired property into a thriving native habitat? Hear the challenges, opportunities and lessons learned from removing acres of asphalt and impervious cover and installing a native prairie and rehabilitated riparian area, installing pervious walking trails, and green stormwater system. Spoiler alert: the challenges have been big, and the rewards are only growing!

Bio

Nancy Pappas is Managing Director for the Headwaters at the Comal, New Braunfels Utilities' conservation legacy project. She has been in this role since December 2016, when she was hired to create a non-profit to partner with NBU and develop the programs, operations and funding for this visionary project. Prior to her work with NBU, Nancy worked as independent non-profit consultant, helping small non-profits with management and program implementation. Nancy is a member of the Go Green Initiative Board of Directors, a national organization advancing environmental justice through health, safety and sustainability in public schools, is a founding member and immediate past-president of the Comal Trails Alliance. She also serves on the TIPHER board and as a volunteer for Habitat for Humanity. As a former Comal ISD trustee Nancy was elected to serve on the Comal Appraisal District Board. Recent accomplishments include earning a Texas Water Leadership Certification. A non-profit management certificate was obtained in 2015. Nancy started her career with Bell Atlantic Mobile Systems in customer service and product management for the fledging mobile phone industry. She is a graduate of Emory University with B.A. in Economics.



PATTY LESLIE PASZTOR

Presentation,

Ethnobotany – Native American and Pioneer Uses of Native Plants

Discover the uses of our native plants for food, medicine, fiber, dyes, basketry and more! Patty will give a slide presentation discussing the human uses of our plants by Native Americans and early settlers, and relate that to modern day usage. She will also touch on their benefit for wildlife.

Bio

Patty Leslie Pasztor is co-author of the book, “Texas Trees, A Friendly Guide”. A graduate of Texas A&M, her experience includes many years as the Native Plant Horticulturist/Curator at the San Antonio Botanical Garden, Park Naturalist at Friedrich Wilderness Park and Adjunct Professor at Alamo Community Colleges. Patty presents workshops on topics including Landscaping for Birds & Butterflies, Tree ID, Edible & Medicinal plants, Survival and more. She conducts plant I.D. hikes and natural resource surveys for landowners in the Hill Country and South Texas, as well as for several city and state parks. Patty teaches a class entitled, “Walk on the Wild Side”, which includes nature hikes to area parks discovering plants, birds, butterflies and more. Pasztor also works for Road Scholar serving as the naturalist on several of the Big Bend trips. She organizes and leads butterfly counts in San Antonio and the Hill Country for the North American Butterfly Association and is an instructor for the Alamo Area Chapter of the Texas Master Naturalists.



ROBERTO GIATAN

NPSOT Chapter President, Rio Grande Valley

Presentation,

Using Digital Tools for Communication Across our Society

Explore the power of social media and websites to connect with plant enthusiasts, share knowledge, and advocate for native plants. Transcend geographical and cultural boundaries by showcasing native plants in landscapes and gardens with appealing visuals, helpful information, and engaging narratives. By curating and disseminating educational content, we engage and empower our community, with each chapter adding its unique voice to the shared mission of the Society.

Bio

Roberto Gaitan is a native Texas, born and raised in the Rio Grande Valley. He left south Texas after high school to attend college and chase his technical career. He returned almost three decades later when he took up his second career as a High School Science Teacher. To help him become a better teacher, he became a Texas Master Naturalist in 2014. It is then that Roberto discovered the uniqueness of his backyard and the peril of our native species and native habitat. Roberto served as President of the Rio Grande Valley Chapter of the Texas Master Naturalist for three years. He is also a board member of the Friends of Estero Llano Grande State Park, board member of the Native Plant Project group, and recently became President of the organization he helped establish, the Rio Grande Valley Chapter of the Native Plant Society of Texas. What drives Roberto above anything else, is the desire educate the public on the natural treasures of our home and promote public support for conservation projects and activities. Only through a unified public effort can we hope to maintain the unique flora of Texas. The survival of our native species depends on the efforts of citizens that care.



STEVE NELLE

Steve Nelle, Natural Resource Consulting, San Angelo, TX

Presentation,

Land Stewardship (It Might Not Be What You Think)

Presentation will convey lessons learned about the true nature of land stewardship from 48 years of working with private landowners in Texas and with heavy reliance on the philosophies of Aldo Leopold.

Bio

Over the last 48 years, Steve Nelle has had the privilege of working with over a thousand different landowners on millions of acres across Texas to support and assist their conservation efforts. He has also become a student of Aldo Leopold and understands the practical relevance of Leopold's land philosophies to today's landowners. By observing and listening to landowners and studying Leopold, Nelle has learned how genuine land stewardship works and what it means. Nelle received a B.S. degree in Range and Wildlife Management from Texas Tech in 1976 and has worked for the Natural Resources Conservation Service and in private consulting.



SUZANNE SCOTT

Suzanne Scott, Texas State Director, The Nature Conservancy

Presentation,

Developing Naturally: How Native Landscapes Create Resilient Communities

Recent studies have shown that natural grasslands and the birds they support are the fastest declining large ecosystem in North America. As The Nature Conservancy expands conservation actions to address both climate change and biodiversity, a focus of the work in Texas is to protect and restore native grasslands and promote improved agricultural land practices. As the state continues to experience rapid growth, TNC is promoting the use of nature as infrastructure to maximize the function and benefit of native landscapes to build resilience to improve soil health, increase carbon sequestration, reduce flooding, decrease heat island, and enhance habitat. Scott's presentation will highlight TNC's programs throughout the state to harvest thousands of pounds of native seed every year, promote conservation-friendly ranching techniques and sustainable land management practices while promoting nature-based solutions in urban and coastal communities.

Bio

Suzanne Scott joined the Nature Conservancy in Texas as the State Director in November 2020 after a 20-year career with the San Antonio River Authority serving as its General Manager for 13 years. Texas has wide-open spaces, thriving cities, a strong farming and ranching culture, and a rapidly growing population. As State Director for The Nature Conservancy in Texas, Scott establishes conservation strategy and public policy leadership to protect the state's cherished landscapes and support ecology, economy, public health, and equity. Collaborating closely with a talented staff of dedicated conservationists, scientists, and multi-disciplinary experts, she is focused on promoting resilience through on the ground nature-based projects in rural and urban communities and along coasts while

supporting the protection and restoration of connected and diverse habitats and ecosystems throughout Texas. At the River Authority, she steadfastly elevated the agency's crucial role and impact and implemented more than \$600 million in highly visible river and creek improvement and restoration projects. She also guided the development of successful programs to improve flood protection, water quality, habitat restoration, and increase access and use of the river and its tributaries for recreation and public enjoyment. In addition, Scott chaired the South-Central Texas Regional Water Planning Group and the Guadalupe and San Antonio Rivers Bay and Basin Area Stakeholder Group. She also led the first Interregional Planning Council, created by the Texas Water Development Board. Currently, she serves on the State Flood Planning Group for the San Antonio River Basin. Suzanne obtained her undergraduate degree from Texas Tech University and a Master of Science in Urban Administration from Trinity University. She is based at TNC Texas headquarter office in San Antonio.



WESTON NEIMAN

Weston Neiman, Business Development, Native American Seed

Presentation,

Creating Sustainable Outdoor Living Spaces

Learn about the critical role native plants play in maintaining ecological balance. Discover how to transform traditional lawns into sustainable outdoor living spaces that harmonize with nature. You will gain practical strategies for transitioning to native turf, including site evaluation, non-native species removal, seed bed preparation, and maintenance tips. Get inspired by stunning visuals of native plant ecosystems and understand how to enhance the biodiversity and beauty within your corner of the planet. Whether you're a seasoned native plant enthusiast or just starting, this session will equip you with the knowledge and motivation to make impactful changes. Don't miss this chance to connect with like-minded individuals and contribute to creating a healthier planet for future generations.

Bio

Weston grew up on the Native American Seed Farm in Junction, TX. Once he was old enough to work (somewhere around the ripe age of 12)... he realized playing sports was a valid excuse to hang out with his friends and get out of moving irrigation pipes all summer long. His father always told him "If it ain't broke, don't fix it", so Weston continued this strategy into his college years where he played football at NMSU. Unfortunately, all good things come to an end and a career ending back surgery at the age of 21 closed out this "sports to avoid work" loophole. Upon earning his MBA from TTU in 2010, he quickly integrated back into the family business working in production, ecological restoration, warehousing and fulfillment, customer service, and business development. He is most proud of the recent team effort to relocate the warehouse facility to the I-35 corridor to improve awareness and access to native plants. Weston is extremely passionate about educating others on the value plants provide the ecosystem and the importance of utilizing diverse native plant communities to support and protect Texas' natural resources for generations to come.



WIZZIE BROWN

Wizzie Brown, Texas A&M AgriLife Extension Service

Presentation,

Gardening for Native Bees

The presentation will cover identification of common native bees as well as things you can do to welcome them into your landscape.

Bio

Wizzie Brown is a Senior Extension Program Specialist- IPM with Texas A&M AgriLife Extension Service. She received her Bachelor's of Science in entomology from Ohio State University and a Master's of Science in entomology from Texas A&M University. After leaving Texas A&M, Wizzie worked in structural pest control before taking a job with Texas A&M AgriLife Extension Service in Austin. She is a Board Certified Entomologist with a specialty in Urban Entomology and holds a non-commercial license from the Texas Structural Pest Control Service. Her research interests include red imported fire ants, bed bugs, and termites.

SECTION FOUR: FIELD TRIPS AND EVENTS



Photo Credit: Allen Lusk

F1 BRACKEN CAVE PRESERVE

Address: 7515 Bracken Cave Road, San Antonio, 78266
21.5 Miles/35 Minutes

Description:

The Bracken Cave Preserve is home to more than 15 million Mexican free-tailed bats (*Tadarida brasiliensis*), one of the largest concentrations of a single species of mammals on earth. The surrounding preserve is home to Hill Country karst topography and contains a large number of old-growth Oak and Ash Juniper (or 'Cedar') trees. Field trip leaders will include Bracken Cave Preserve volunteers and the discussion will focus on native plants and ongoing regeneration of the habitat. Please note this trip does not include a visit to the interior of the cave or bat viewing.

Links

<https://www.batcon.org/see-bats-live/visit-bracken-cave-preserve/>
<https://tpwd.texas.gov/huntwild/wild/species/bats/bat-watching-sites/bracken-cave-preserve.phtml>

Field Trip Leader: Bracken Cave Preserve Volunteers

Difficulty: Moderate; rough and uneven terrain along the walk.

Wheelchair/ADA Accessible: No

Start Time: 1:45

Estimated Duration: 2 Hours

Maximum Number of Attendees: 30 (in multiple groups)

Fees: None

Facilities: Yes

Other: Carpooling is highly recommended because entry is controlled via gate. Once the gate is closed, entry will not be possible.

Written Directions:

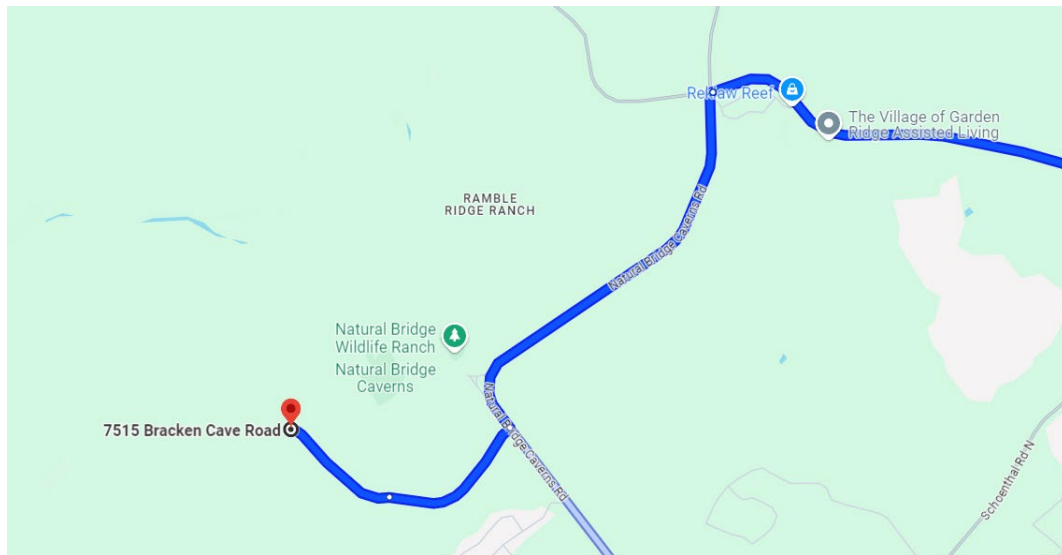
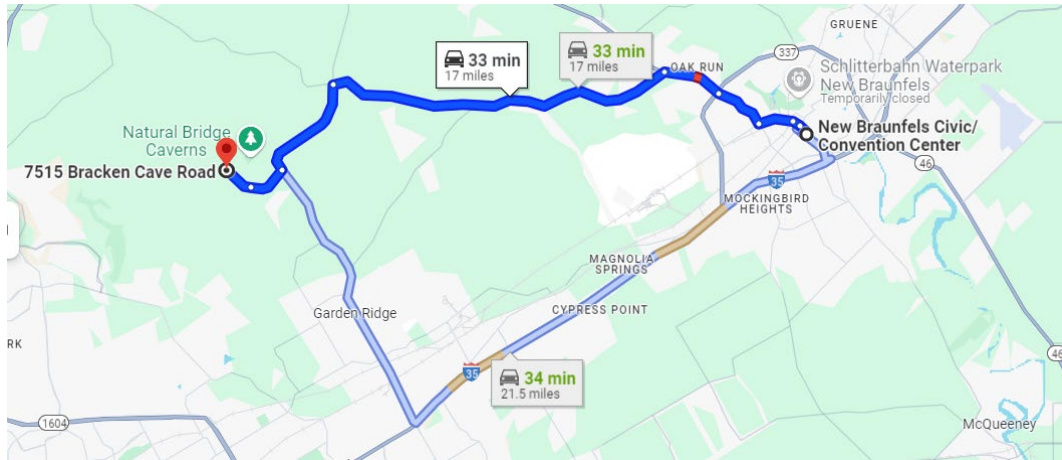
Take W Coll St to S Seguin Ave
51 sec (0.2 mi)

Take FM1863 and Natural Bridge Caverns Rd to Bracken Cave Rd
23 min (15.1 mi)

Follow Bracken Cave Rd to your destination
7 min (1.7 mi)

7515 Bracken Cave Rd
San Antonio, TX 78266

Google Map Link: <https://maps.app.goo.gl/5ZdKyyz9UdS8Fo8S6>



F2 BLUE HOLE REGIONAL PARK / CYPRESS CREEK NATURE TRAIL & PRESERVE

Address: 333 Blue Hole Lane, Wimberley 78676

32 Miles/41 Minutes

Description:

Blue Hole Regional Park is in the heart of the Texas Hill Country. This Wimberley park's key feature is the iconic Blue Hole, a stunning natural swimming area fed by the crystal-clear waters of Cypress Creek. The water's distinct blue hue, combined with the lush surroundings, creates a serene and inviting atmosphere for the walk. Cypress Creek Nature Trail & Preserve is 7.24 acre preserve and city park adjacent to Blue Hole and it features hiking and biking trails. The tour will be a linear walk moving along Cypress Creek.

Links:

<https://wimberleyparksandrec.com/blue-hole-regional-park/>

<https://fh-sites.imgix.net/sites/7034/2023/12/04153116/Document41.png>

Field Trip Leader: Wimberly Park Staff or Park Volunteer

Difficulty: Easy but with some uneven ground

Wheelchair/ADA Accessible: No

Start Time: 2 PM

Estimated Duration: 2 hours

Maximum Number of Attendees: 20

Fees: No

Facilities: Yes

Other: Transportation may involve carpooling; will meet at picnic tables in the swim area parking lot

Written Directions:

Take W Garden St to S Seguin Ave

31 sec (0.1 mi)

Follow I-35 N and Ranch Rd 12 to Wimberley

37 min (31.2 mi)

Drive to Blue Hole Rd

2 min (0.3 mi)

Blue Hole Regional Park

333 Blue Hole Ln, Wimberley, TX 78676

Google Map Link: <https://maps.app.goo.gl/r8UcaSziYmvuP2TA>

F3 CRESCENT BEND NATURE PARK

Address: 12805 W. Schaefer Road, Schertz, TX 78108

Miles/Minutes: 17 Mi/26 Min

Description:

The homes in this flood-prone subdivision along Cibolo Creek were purchased and demolished and a park was established in its place. The area is being regenerated with native plants such as inland sea oats and Turk's cap which support a wide variety of insects, reptiles, birds, and mammals. The City of Schertz partners with the San Antonio Zoo and allows the collection of harvester ants from the park to supplement the diet of the Texas Horned Lizards raised at the zoo as part of their Conservation Program. The zoo provides educational programs to the public at the park three times a year. The site is a mixture of prairie, woodland and riparian plants making this a birding hot spot with over 250 species reported by Audubon groups and individuals. The crushed granite walking trail is 1.3 miles with point-of-interest markers.

Links:

<https://friendscbnp.zenfolio.com/>

Map <https://friendscbnp.zenfolio.com/p759107529/h769fc73c#h769fc73c>

Field Trip Leader: TBD

Difficulty: Easy

Wheelchair/ADA Accessible: Yes

Start Time: 1:45 PM

Estimated Duration: 1 Hour

Maximum Number of Attendees: 20

Fees: No

Facilities: Yes

Other: Carpooling recommended

Written Directions:

Take S Castell Ave to I 35 Frontage Rd
3 min (0.9 mi)

Take I-35 S and FM1103 S to Tolle Rd in Cibolo
16 min (12.7 mi)

Continue on Tolle Rd to Farm-To-Market Rd 78 W
4 min (1.8 mi)

Continue on Farm-To-Market Rd 78 W. Drive to E Schaeffer Rd
2 min (0.9 mi)

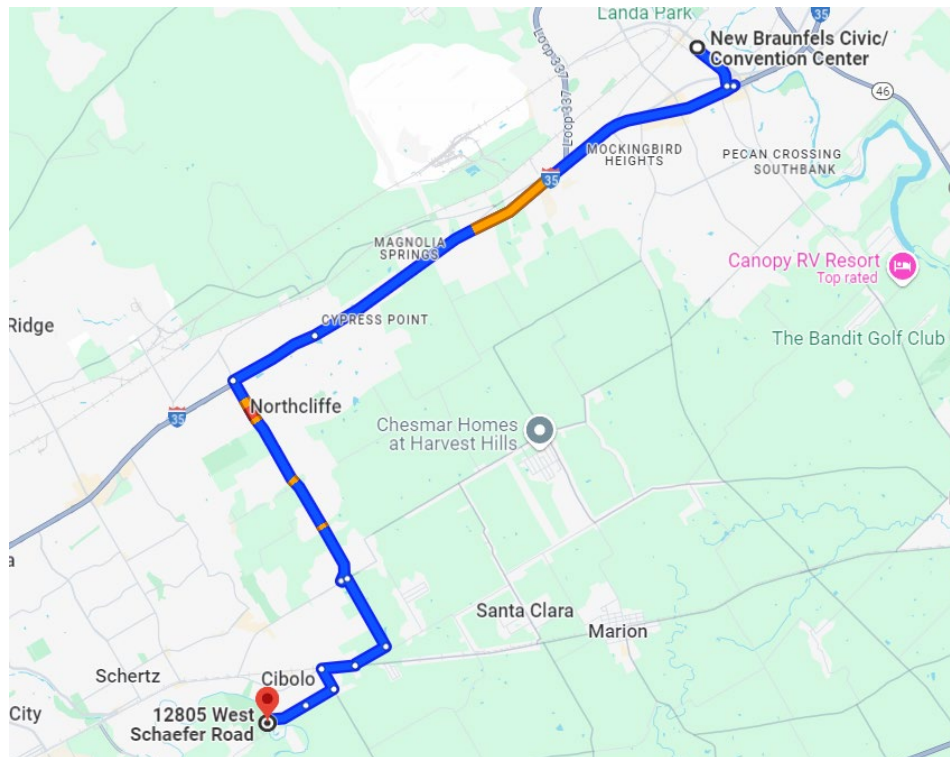
Drive to W Schaefer Rd in Bexar County

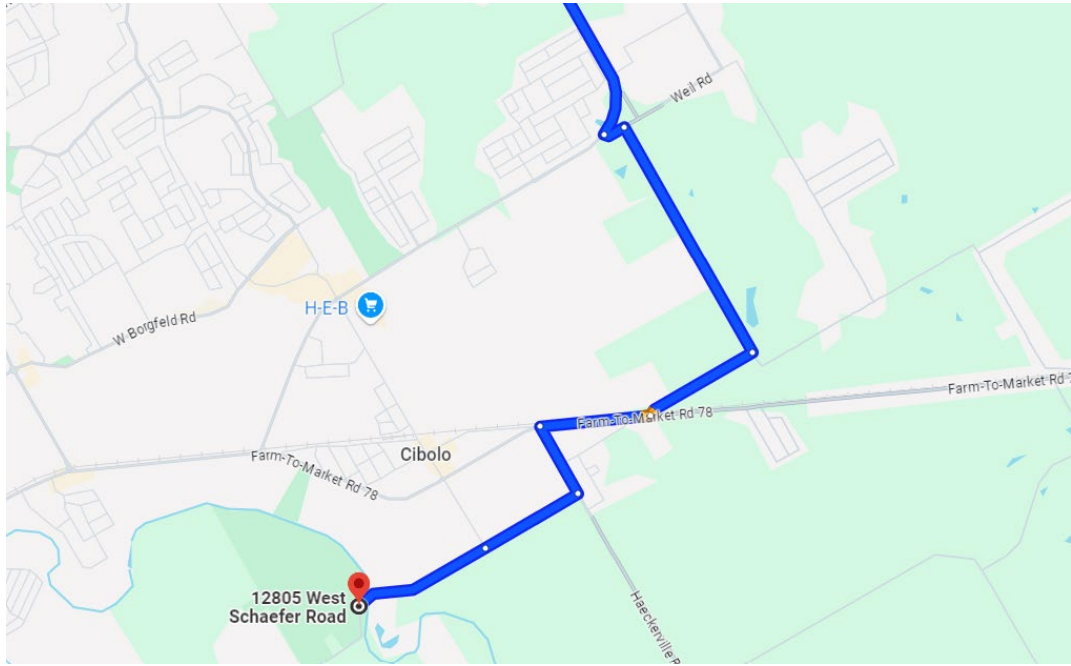
3 min (1.2 mi)

12805 W Schaefer Rd

Cibolo, TX 78108

Google Map Link: <https://maps.app.goo.gl/cAGTLKnidfbHRfTD6>





F4 DOMINICK ARBORETUM

Address: 311 Clear Lake Drive, New Braunfels, TX 78132

Miles/Minutes: 16 Mi/28 Min

Description:

Established in 2008, the Dominick Arboretum is an internationally accredited arboretum representing a diverse native Central Texas hill country wildlife habitat. A goal is to share a mature arboretum that will inspire arborists and future generations of conservation-minded land stewards. The eleven-acre woodland / prairie / riparian ecosystem contains approximately 600 woody specimens, meadows of native little bluestem grasses and wildflowers. 650 trees & shrubs representing 250 native and 50 nonnative adaptive species to our Comal & surrounding counties within the Edwards Plateau ecoregion have been planted. You will likely see native birds, butterflies, bees, and deer and be provided food for feeding the fish in the various ponds.

Links: <http://arbnet.org/morton-register/dominick-arboretum>

Field Trip Leader: Leon Dominick

Difficulty: Moderate Terrain

Wheelchair/ADA Accessible: No

Start Time: 1:45 PM

Estimated Duration: 1.5 Hours

Maximum Number of Attendees: 20

Fees: No

Facilities: Yes

Other: Wear sturdy shoes, hats, and sunscreen protection. Bring your cameras, woody plant books & questions. We will provide cold water, otherwise bring your preferred beverage. Carpooling recommended.

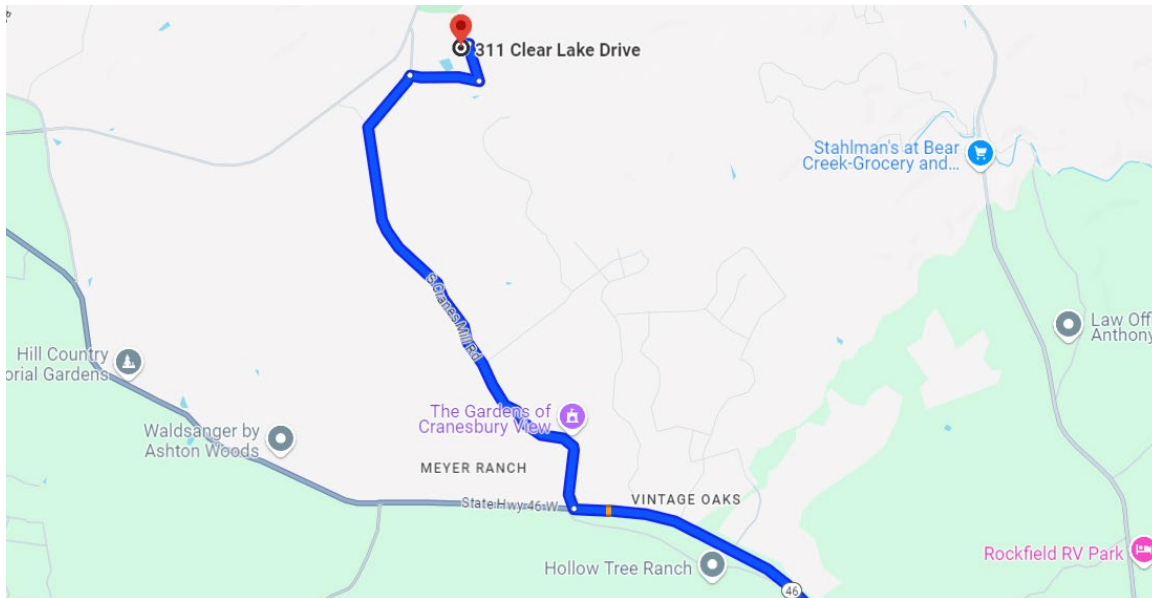
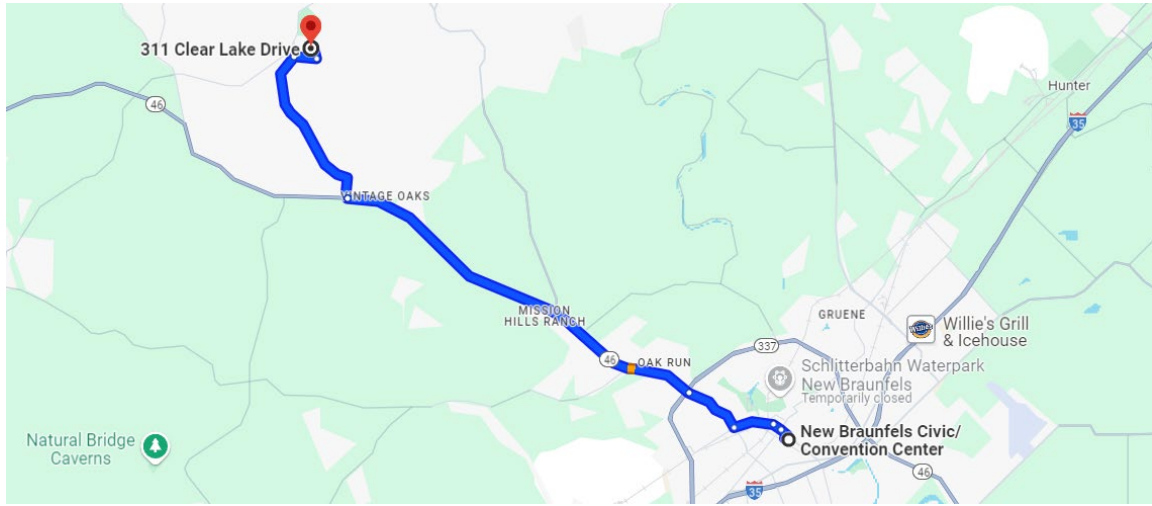
Written Directions:

Take Landa St and N Walnut Ave to TX-46 W/State Hwy 46 W
7 min (2.7 mi)

Continue onto TX-46 W/State Hwy 46 W
11 min (8.5 mi)

Continue on S Cranes Mill Rd to your destination
10 min (4.5 mi)
311 Clear Lake Dr
New Braunfels, TX 78132

Google Map Link: <https://maps.app.goo.gl/ih5oSeD9Ggtx7jNz7>



F5 HARDBERGER PARK / ROBERT L.B. TOBIN LAND BRIDGE

Address: 8400 NW Military Hwy, San Antonio, TX 78231

Miles/Minutes: 47 Min/32 Mi

Description:

Phil Hardberger Park, opened in 2010, is a 311-acre sustainable natural urban park that is 75% wildlife preserve and 25% set aside for recreation. The park contains two playscapes on either side of the park, a nature play area for children, dog parks on both sides of the park, picnic facilities, basketball courts, an outdoor classroom, a children's vegetable garden, a wildscape demonstration garden, a restored wetland, the Salado Creek overlook, the Skywalk, and the Robert L.B Tobin Land Bridge.

The park, a former dairy farm, is bisected by Wurzbach Parkway running between N.W. Military Highway and Blanco Road. The park has been reconnected with the first dual-use land bridge for wildlife and pedestrians connecting the west side's 3.64 miles of trails and the east side's 2.84 miles of trails. The park is located at the conjunction of 3 different ecoregions, the Edwards Plateau, Blackland Prairies, and South Texas Plains that lead to remarkable diversity of vegetation in the park. The land bridge also connects to the Salado Creek Greenway trail system which is over 16 miles of trail.

Links:

<https://www.philhardbergerpark.org/>

<https://www.philhardbergerpark.org/land-bridge>

<https://www.philhardbergerpark.org/s/Park-Map-flyer-2022-flat-terrain.pdf>

Field Trip Leader: Wendy Leonard, Assistant Manager,
City of San Antonio Parks and Recreation Natural Areas

Difficulty: Easy to moderate; the trail to the land bridge is a mixture of decomposed granite and stalok which is different from the natural surface trails which are a bit more difficult. It is mostly flat terrain with a gradual incline when on the land bridge.

Wheelchair/ADA Accessible: No; however, the trip is possible with participants being assisted in wheelchairs

Start Time: 2 PM

Estimated Duration: 4 Hours

Maximum Number of Attendees: 80, in multiple groups

Fees: No

Facilities: Yes

Other: Traffic in San Antonio may impact travel times. Carpooling recommended.

Written Directions: Get on I-35 S from S Castell Ave

3 min (1.1 mi)

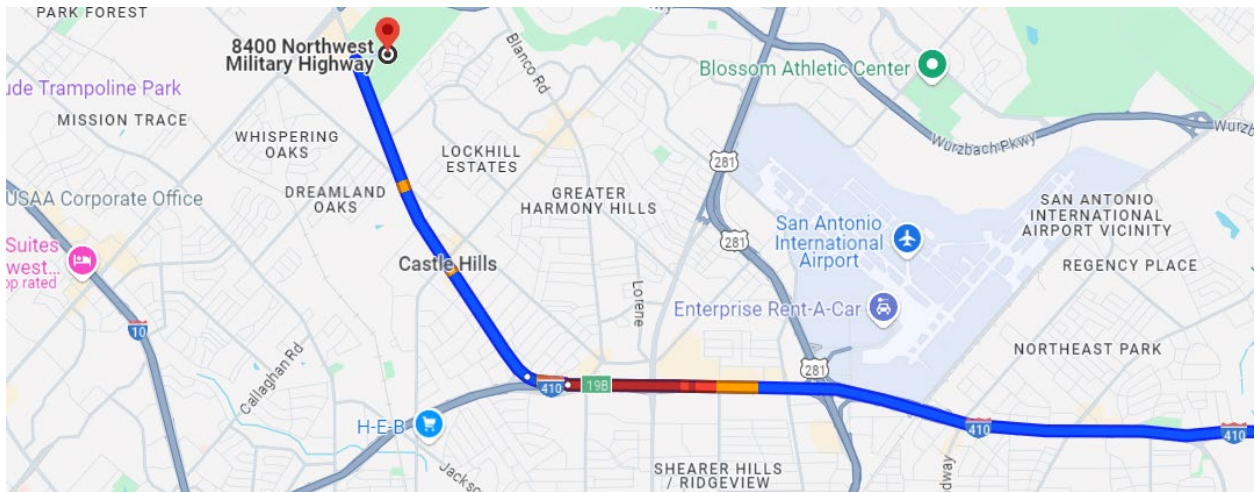
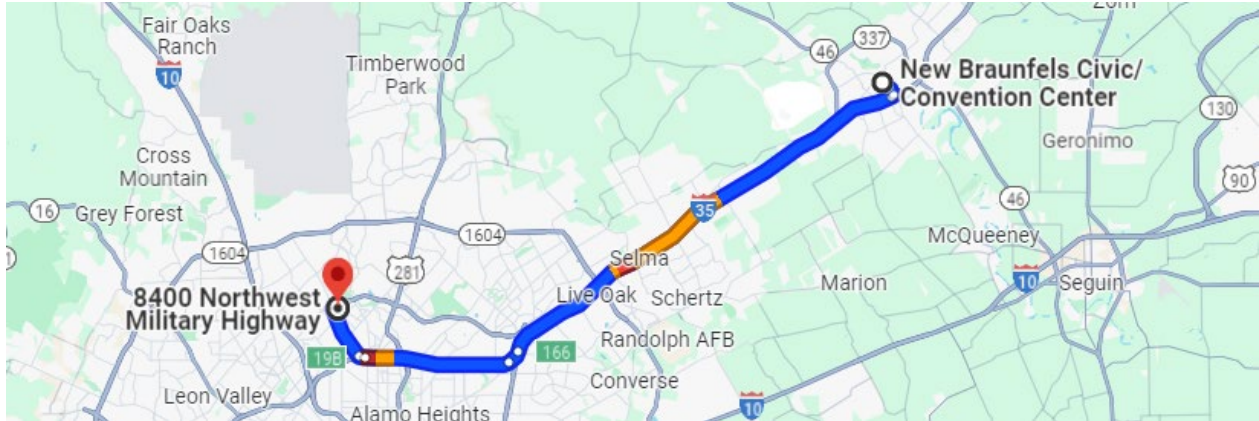
Continue on I-35 S to Castle Hills. Take exit 19B from I-410 W

26 min (28.1 mi)

Merge onto FM1535 N/NW Loop 410 Acc Rd/NW Military Hwy

5 min (2.5 mi)
8400 NW Military Hwy
San Antonio, TX 78231

Google Map Link: <https://maps.app.goo.gl/M5ACQFQRRVoNVr5u5>



F6 HONEY CREEK STATE NATURAL AREA

Address: Guadalupe River State Park, 3350 Park Road 31, Spring Branch, TX 78070
(Meeting at Rust House inside the park)

Miles/Minutes: 32 Mi/42 Min

Description:

A most Recent Success of The Nature Conservancy and Texas Parks and Wildlife, this canyon and floodplain conservation area includes restricted access to 2 miles of trails and rich fauna.

Imagine the Hill Country of 100 years ago – or see it for yourself at Honey Creek State Natural Area. This protected piece of land harbors plants and animals nurtured by a 1.5-mile spring-fed creek. [Access to Honey Creek is only by guided tour](#) and it has grown by 515 acres due to a recent land purchase. On the tour, you'll hear about the history, geology, plants and animals of this special place. At the scenic overlook, Spanish moss dangles from live oaks and Ashe junipers. You'll get a first glimpse of Honey Creek winding through bald cypress trees far below. The tour culminates in a walk by the pristine and peaceful creek.

Links: <https://tpwd.texas.gov/state-parks/honey-creek>

State Park Map that includes the Rust House meet-up location:

https://tpwd.texas.gov/publications/pwdpubs/media/park_maps/pwd_mp_p4505_040e.pdf

Interpretive Guide: https://tpwd.texas.gov/publications/pwdpubs/media/pwd_br_p4505_0040g.pdf

Bird Checklist: https://tpwd.texas.gov/publications/pwdpubs/media/pwd_bk_p4505_0040b.pdf

Press Release: <https://tpwd.texas.gov/newsmedia/releases/?req=20230622a>

Additional Information: <https://www.backroadstexas.net/honey-creek-state-natural-area-hill-country-history/>

Field Trip Leaders: TBD - Honey Creek Hikes Volunteers

Difficulty: Moderate; much is flat, but there are some rocky areas, slopes, and two steep but short hills; The two more challenging areas are toward the latter part of the guided walk. For those who may not think they are able to make it, the option of walking on the access road is an option. It will still be rocky, but the climb is very gradual compared to that of the two steep hills.

Wheelchair/ADA Accessible: No

Start Time: 2:00 PM

Estimated Duration: 2.5 Hrs

Maximum Number of Attendees: 18

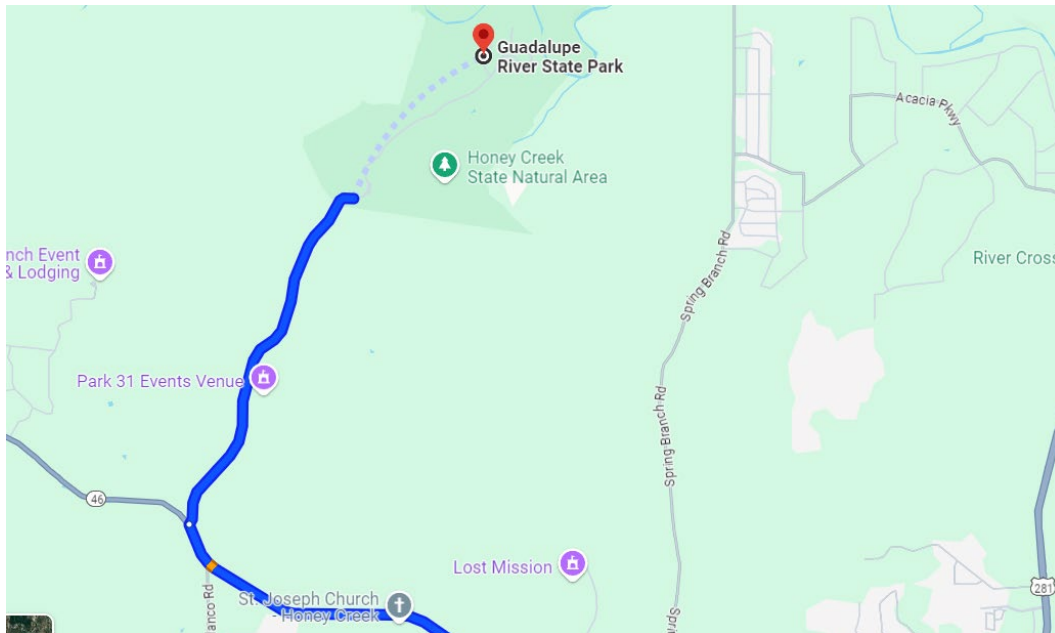
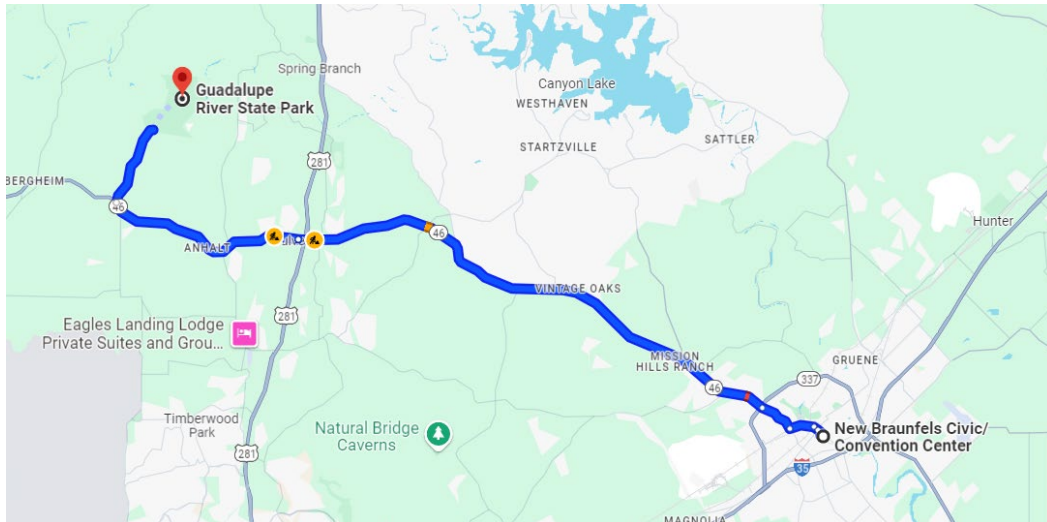
Fees: State Park fees apply: be prepared to show a Texas State Park Membership or pay a \$7 fee at park entry.

Facilities: There will be one single bathroom inside of the Rust House and none during the duration of the guided walk. Recommendation is to stop down in the day-use area to utilize those facilities before heading over to the Rust House as they are nice and can accommodate a larger group of folks simultaneously.

Other: Carpooling required; Sturdy footwear, water, and sun protection are needed

Written Directions: The park is located at the north end of Park Road 31, adjacent to Guadalupe River State Park, and may be reached by traveling west on State Highway 46, eight miles west of the intersection on State Highway 46 and US Highway 281; or by traveling eastward on State Highway 46, 13 miles east of Boerne. Inside the park, drive up the main park road for about a mile and then turn right towards the Rust House. Please note this Natural Area is only accessible through guided tours

Google Map Link: <https://maps.app.goo.gl/sXYM9t81AoE4CAiXA>



F7 JACOB'S WELL NATURE AREA

Address: 1699 Mt. Sharp Rd, Wimberley, TX, 78676

Miles/Minutes: 45 Min/30 Mi

Description:

This 81-acre nature area features the Jacob's Well 12' diameter perennial karstic spring with a deep-water cave. The well is headwaters of Cypress Creek which flows through Blue Hole Regional Park and feeds into the Blanco River. Hays County purchased the first 50 acres of land around Jacob's Well in 2010 in an attempt to protect the spring from development. Thirty-one acres was transferred to the county from the neighboring Jacob's Well Natural Area which was created to protect the Wimberley Watershed. The site has plant displays, water harvesting and rain garden, and a walking trail to the spring. David Baker is responsible for preservation of the land, creator of the "One Water" School in Wimberley and has offered to lead the group if wanted. He is the Exec. Director of the Watershed Association. There is also a labyrinth, and the Hays County Master Gardeners maintain several demonstration gardens on site.

Links: <https://www.hayscountytexas.com/jacobs-well-natural-area>

Field Trip Leaders: Hays County Park Staff

Difficulty: Some stairs; various compacted granite and natural surface trails. While we do not consider our tours to be strenuous, you will travel up and down several inclines and walk on rock ledges. Approach to and from the well is quite steep and without handrails.

Wheelchair/ADA Accessible: No

Start Time: 2:00 PM

Estimated Duration: 1.5 Hours

Maximum Number of Attendees: 20

Fees: No

Facilities: Yes

Other: Carpooling recommended

Written Directions:

Take W Garden St to S Seguin Ave

31 sec (0.1 mi)

Take I-35 N and Ranch Rd 12 to Mt Sharp Rd in Hays County

45 min (35.3 mi)

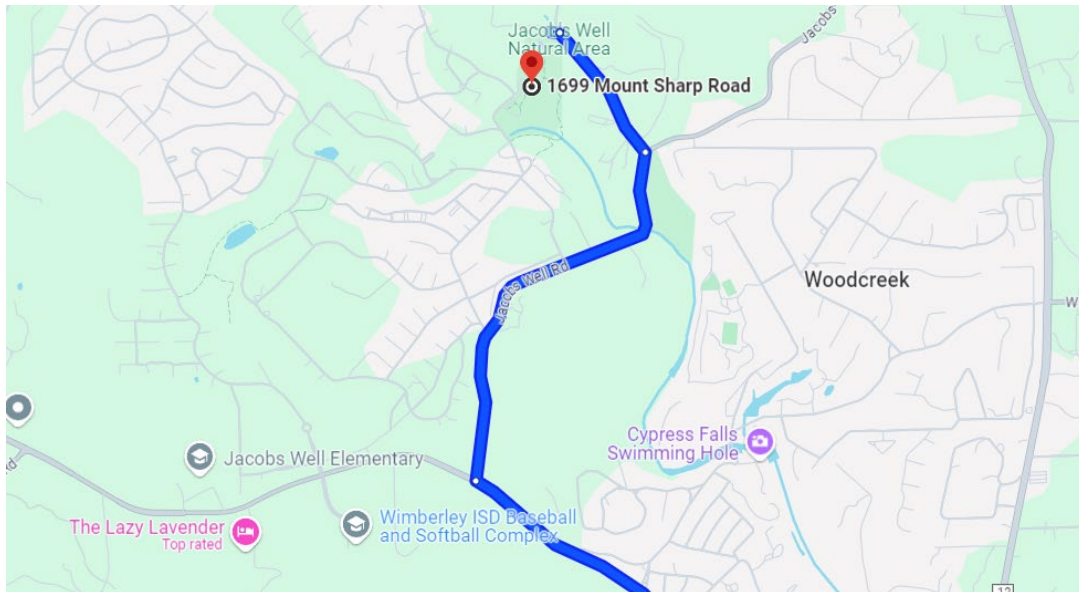
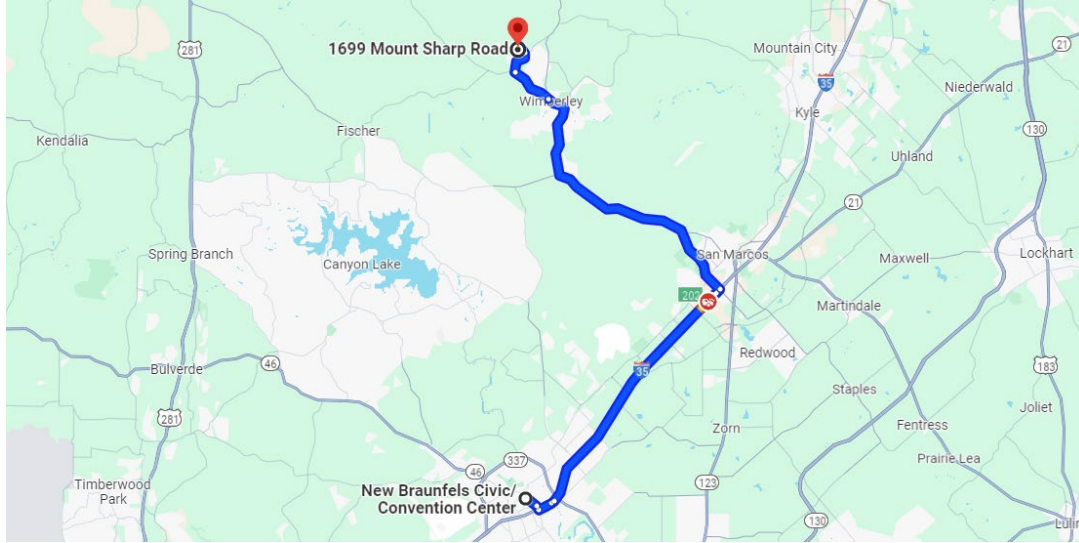
Follow Mt Sharp Rd to Whippoorwill Dr

1 min (0.5 mi)

1699 Mt Sharp Rd

Wimberley, TX 78676

Google Map Link: <https://maps.app.goo.gl/ruDppiAEyhEFQHqJA>



F8 MEADOWS CENTER FOR WATER & THE ENVIRONMENT WALKING AND BOAT TOUR

Address: 201 San Marcos Springs Dr., San Marcos, TX 78666

Miles/Minutes: 21 Mi/21 Min

Description:

The Meadows Center for Water and the Environment is an educational center focused on Spring Lake and the more than 200 springs that form part of the San Marcos River. The river is a 'critical habitat' home to several aquatic animals, and Texas Wild Rice. A presentation, wetland boardwalk walking tour and glass bottom boat tour will be included.

Links: <https://www.meadowscenter.txst.edu/>

Field Trip Leaders: Meadows Center Staff

Difficulty: Easy

Wheelchair/ADA Accessible: No

Start Time: 1:45 check in

Estimated Duration: 2 Hr

Maximum Number of Attendees: 100 (in multiple groups)

Fees: \$9.00

Facilities: Yes

Other: Carpooling recommended; Vehicles parked at the Meadows Center during the field trip (between 1-5 PM) must display a valid Texas State University parking permit or purchase a one-day temporary permit available for \$3 at the pay-and-display station located near the ticket kiosk.

Written Directions:

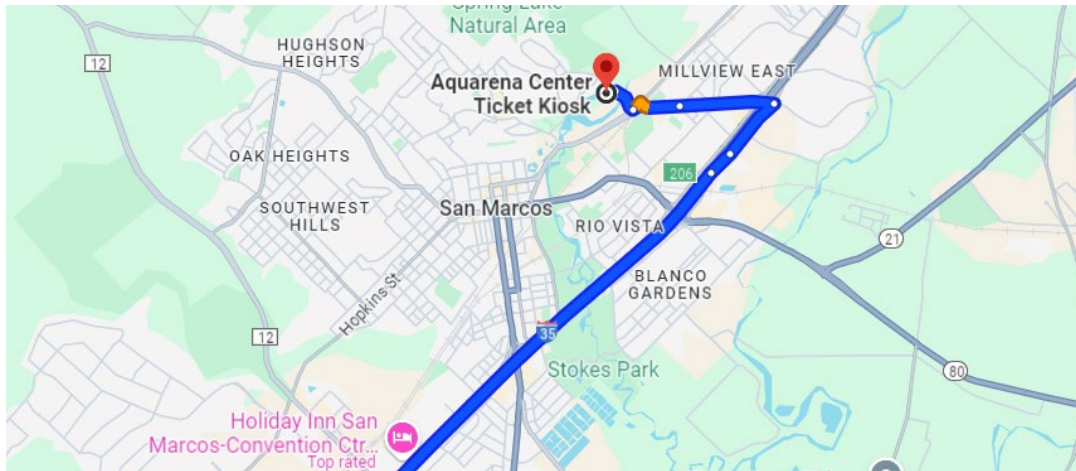
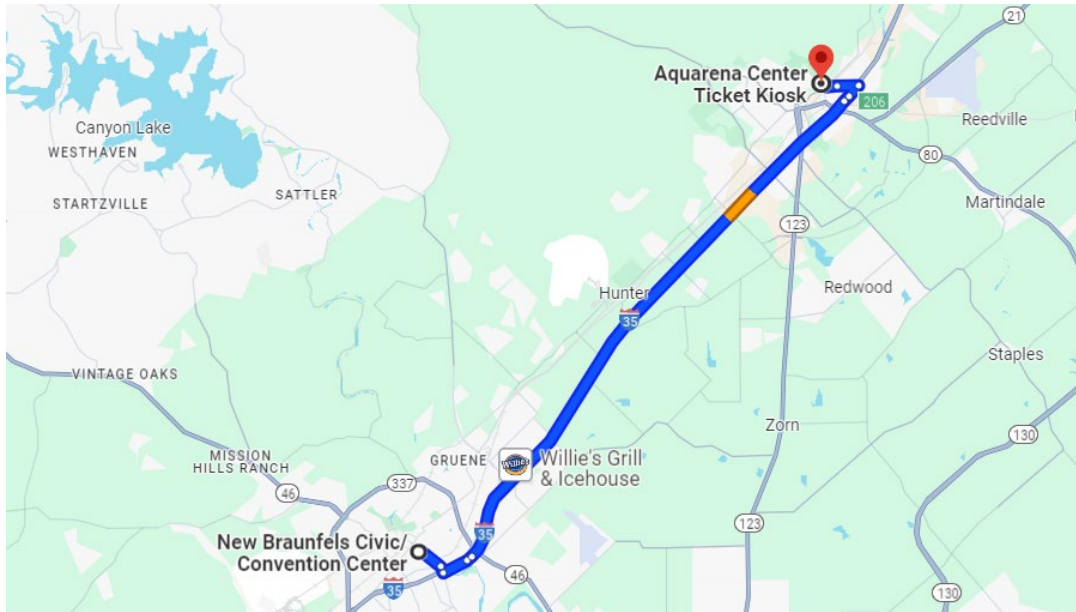
Get on I-35 N from S Seguin Ave and I 35 N Frontage Rd
5 min (2.0 mi)

Follow I-35 N to I 35 N Frontage Rd/N Interstate 35 in San Marcos. Take exit 206 from I-35 N
15 min (17.2 mi)

Continue on I 35 N Frontage Rd/N Interstate 35 to your destination
5 min (1.6 mi)

Aquarena Center Ticket Kiosk
201 San Marcos Springs Dr, San Marcos, TX 78666

Google Map Link: <https://maps.app.goo.gl/8iZAmtJY2qWjy7K27>



F9 PURGATORY CREEK NATURAL AREA – LOWER PURGATORY

Address: 2101 Hunter Rd, San Marcos, TX 78666 (up point)

Miles/Minutes: 4.5 Mi/12 Min

Description:

Purgatory Creek Natural Area is a 700+ acre preserve is the result of successful efforts to preserve this riparian greenbelt. The tour will include a trail walk through the area. The site is a success story for the San Marcos Greenbelt Alliance. This tour will cover Lower Purgatory, the most popular trailhead.

Links:

Description: <https://smgreenbelt.org/natural-areas/#purgatory-creek>

Map: <https://smgreenbelt.org/wp-content/uploads/2020/09/Purgatory-8.5x11-update-9.9.2020.pdf>
<https://www.visitsanmarcos.com/things-to-do/outdoors-and-nature/purgatory-creek-natural-area/>

Field Trip Leaders: Lance Jones

Difficulty: Moderate difficulty with some elevation changes and uneven terrain

Wheelchair/ADA Accessible: No

Start Time: 1:30 PM

Estimated Duration: 1.5-2 Hrs

Maximum Number of Attendees: 25

Fees: No

Facilities: Yes

Other: Carpooling recommended as there are only 35 total parking spaces; There is a water fountain and a single restroom. Closed-toe shoes, long pants, and bringing a water bottle are suggested.

Written Directions: TBD

Google Map Link: <https://maps.app.goo.gl/LrnZsjRM7gcERP7X9>

In case of Medical Emergency, call 911

Local Urgent care & emergency care open 24 hours, 7 days a week:

Lonestar 24 HR ER, 1751 Medical Wy, New Braunfels, TX 78132, (830) 627-0911

<https://www.lonestar24hrer.com/>

Native Plant Society of Texas Contacts:

Jean Wilson, 830-237-9002

Craig Bruska, 847-651-2629

F10 SAN MARCOS DISCOVERY CENTER NURSERY PROGRAM & ARBORETUM TRAIL

Address: 430 Riverside Drive, San Marcos, TX, 78666

Miles/Minutes: 20 Mi/23 Min

Description:

This two-part San Marcos Discovery Center field trip includes 1) a tour of the San Marcos city-run native plant nursery and greenhouse operation supplying the city and community with native plants and 2) a walking tour of the Level 1 Discovery Arboretum Trail. The Discovery Arboretum Trail will take visitors on a tour through a variety of native and adapted woody shrubs and trees. Some of the trees are mature, while some are young and just beginning to establish and grow. The trail is located close to the Balcones fault-line and showcases many species of woody trees and shrubs that can grow on either the Blackland prairie or the Edwards plateau, covering a range of habitats, including riparian, mesic, and upland species. Tree-markers along the trail provide QR code access to species details.

Links:

San Marcos Discovery Center Information: <https://sanmarcostx.gov/873/Discovery-Center>

Arboretum Trail Map and Plant List: <https://sanmarcostx.gov/DocumentCenter/View/11216/The-Discovery-Arboretum-Trail-Map>

Field Trip Leaders: Nursery/Discovery Center Staff and Hill Country NPSOT Chapter Volunteers

Difficulty: Easy

Wheelchair/ADA Accessible: Yes

Start Time: 1:30 PM

Estimated Duration: 1.5 Hrs

Maximum Number of Attendees: 20 (In 2 groups)

Fees: No

Facilities: Yes

Other: Limited Parking; Carpooling may be required

Written Directions:

Get on I-35 N from S Seguin Ave and I 35 N Frontage Rd

5 min (2.0 mi)

Follow I-35 N to I 35 N Frontage Rd in San Marcos. Take exit 205 from I-35 N

13 min (15.6 mi)

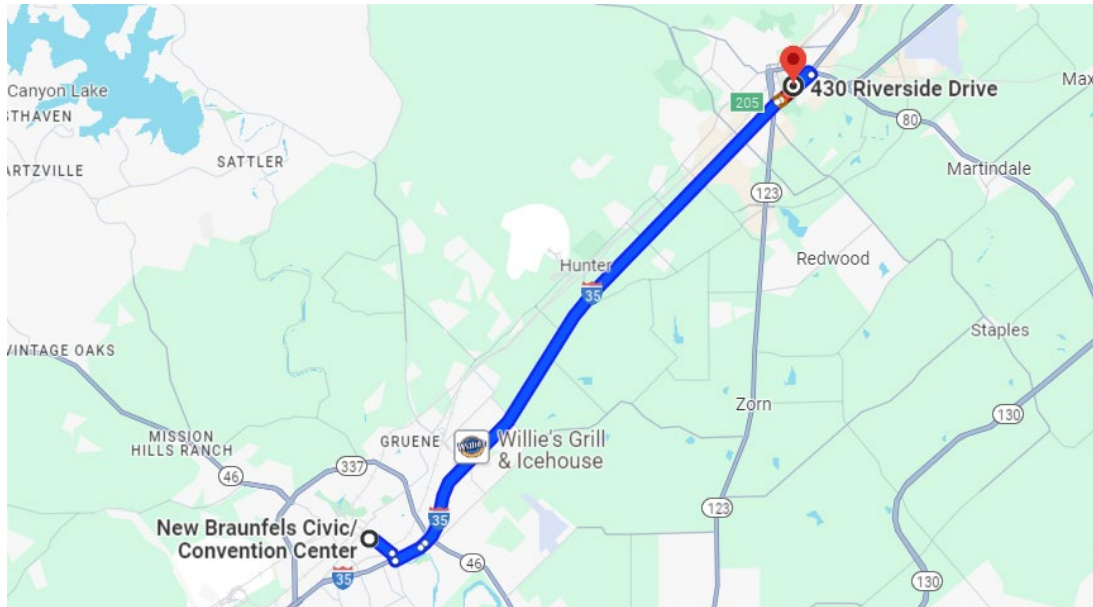
Continue on I 35 N Frontage Rd. Drive to I 35 Frontage Rd

3 min (1.7 mi)

430 Riverside Dr

San Marcos, TX 78666

Google Map Link: <https://maps.app.goo.gl/QUEJEYxUH5CfJyGU7>



F11 WARBLER WOODS BIRD SANCTUARY

Address: 19349 Old Wiederstein Rd, Cibolo, TX 78108

Miles/Minutes: 11.5 Mi/20 Min

Description:

Warbler Woods Bird Sanctuary is a 124-acre private preserve, with 40 acres of open grassland, and 80+ acres of woodlands (savannah, heavy understory, and brush). About 295 bird species, including 41 species of warblers, have been listed and it is home to rare species like the Texas Almond.

Links:

<http://www.warblerwoods.org>

[Trail Map](#)

[Bird List](#)

[Geology, Plants, and Habitat](#)

Field Trip Leaders: Warbler Woods Bird Sanctuary

Difficulty: Easy, unimproved trails with gently rolling topography

Wheelchair/ADA Accessible: No

Start Time: 1:30 PM

Estimated Duration: 1.5 – 2 Hr

Maximum Number of Attendees: 40 (in multiple groups)

Fees: No

Facilities: Yes

Other: Limited Parking; Carpooling suggested; Snakes may be encountered if you go off trail

Written Directions:

Get on I-35 S from S Castell Ave

3 min (1.1 mi)

Follow I-35 S to I 35 N Frontage Rd in Schertz. Exit from I-35 S

7 min (7.7 mi)

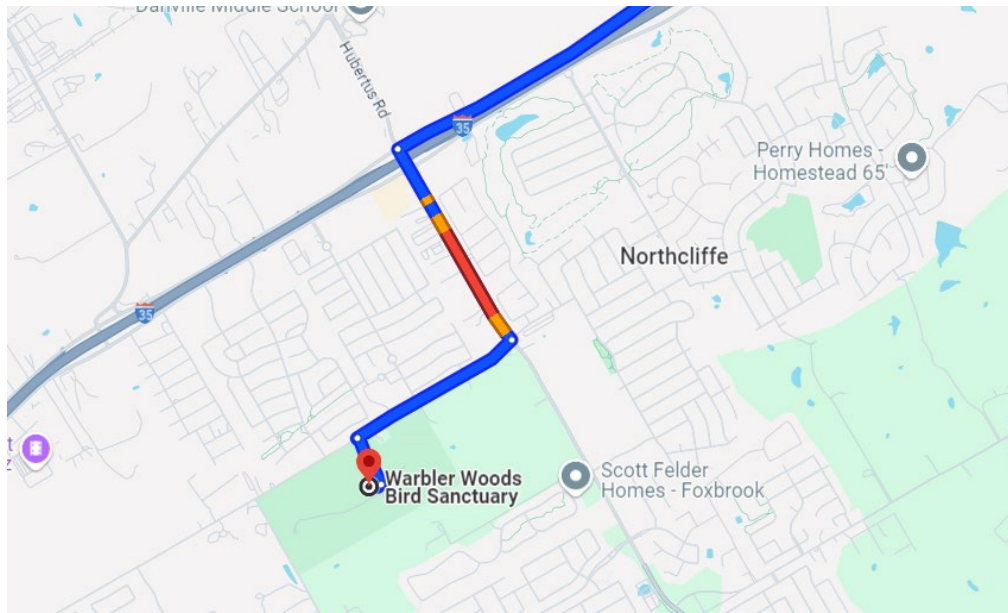
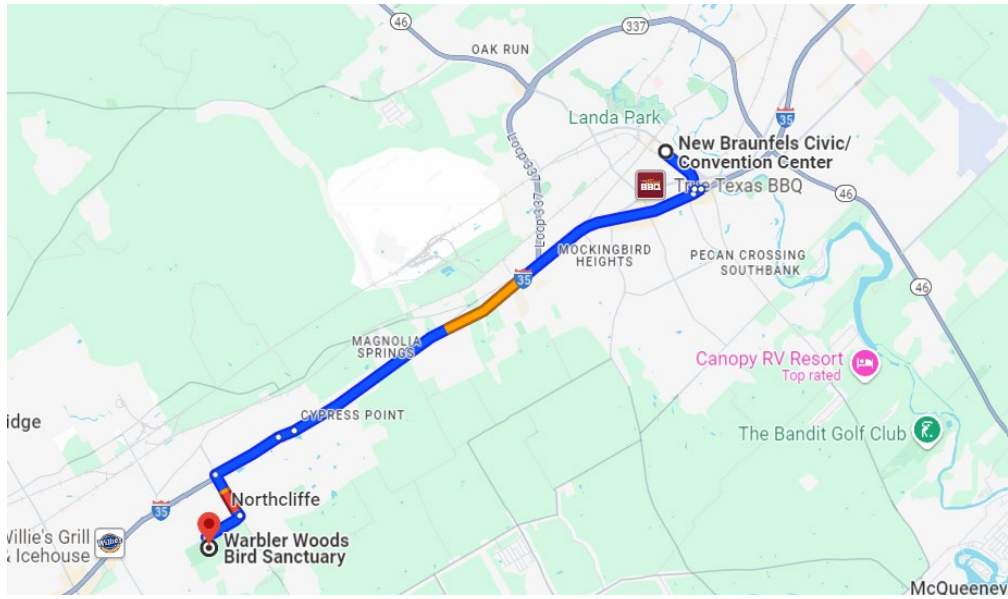
Follow I 35 N Frontage Rd, FM1103 S and Old Wiederstein Rd to your destination in Guadalupe County

7 min (2.8 mi)

Warbler Woods Bird Sanctuary

19349 Old Wiederstein Rd, Cibolo, TX 78108

Google Map Link: <https://maps.app.goo.gl/puArZQJYSyXDZ1YB9>



F12 WESTON RANCH

Address: 6445 Green Valley Rd, Cibolo, TX 78108

Miles/Minutes: 11 Mi/17 Min

Description:

The Weston Ranch Foundation is the vision of Caroline and Grainger Weston who created this 4,200 acre preserve in a series of acquisitions over 50 years. The Foundation preserves a mixed habitat with examples of both Blackland Prairie and Edwards Plateau plants. Texas Lutheran University has led a multi-year research project of the site's plant community. Representatives of the Foundation will explain the on-going restoration planning process so far. The Weston Ranch Foundation is working with the NRCS to prepare long-term phasing restoration plan. They have received LIP and EQIP grants to restore Blackland Prairie.

Links: <https://www.westonranchfoundation.org/>

Field Trip Leaders: Matt Wagner

Difficulty: Moderate; varied terrain, unimproved trails; Rough terrain footwear required.

Wheelchair/ADA Accessible: No

Start Time: 1:30 PM

Estimated Duration: 1.5-1.75 Hr

Maximum Number of Attendees: 40 (in multiple groups)

Fees: No

Facilities: No

Other: Carpooling recommended

Written Directions:

Get on I-35 S from S Castell Ave

3 min (1.1 mi)

Follow I-35 S to I 35 N Frontage Rd in Schertz. Take exit 180 from I-35 S

6 min (6.7 mi)

Follow I 35 N Frontage Rd and Eckhardt Rd to Green Valley Rd in Guadalupe County

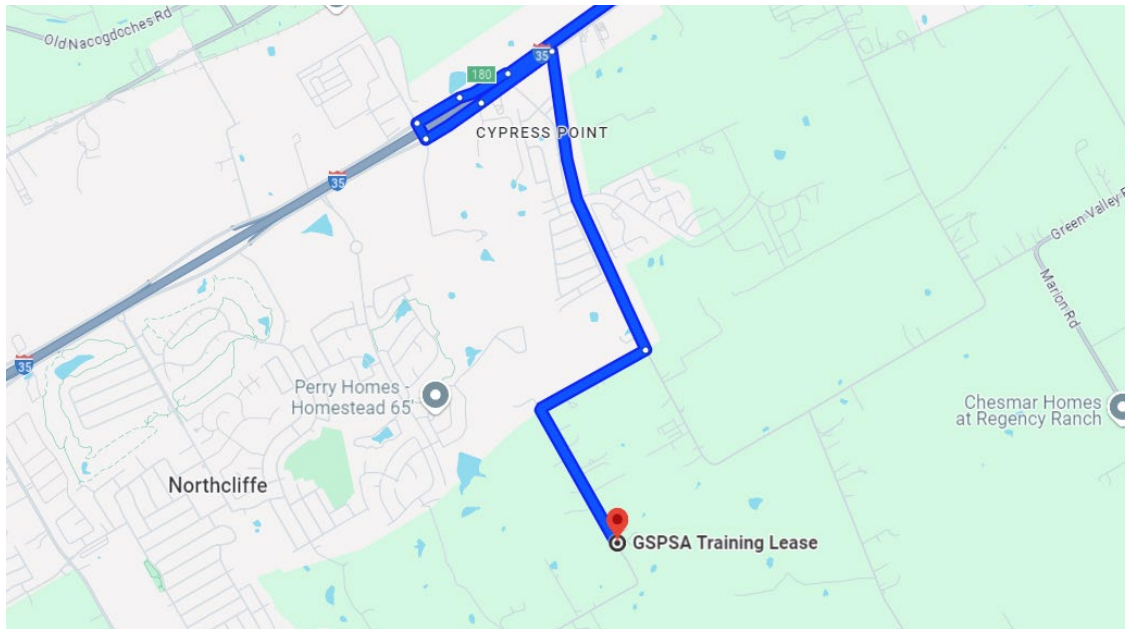
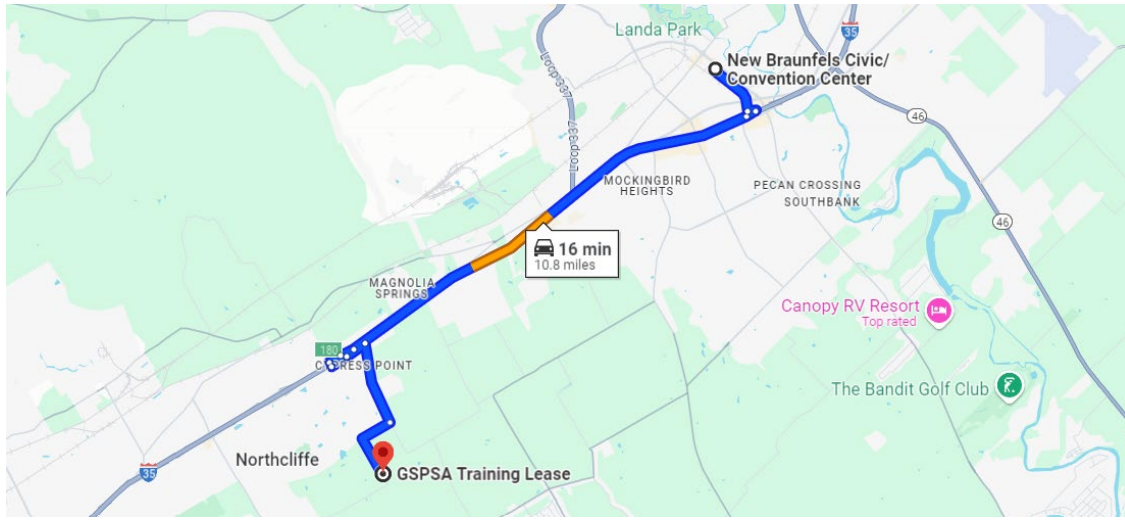
6 min (3.0 mi)

GSPSA Training Lease

6442 Green Valley Rd, Cibolo, TX 78108

Google Map Link:

<https://www.google.com/maps/dir/New+Braunfels+Civic%2FConvention+Center,+375+S+Castell+Ave,+New+Braunfels,+TX+78130/29.6175479,-98.1996723/@29.6589219,-98.2025719,15144m/data=!3m2!1e3!4b1!4m9!4m8!1m5!1m1!1s0x865cbd686a7a3355:0xbb436e3f7515f168!2m2!1d-98.121757!2d29.700028!1m0!3e0?entry=ttu>



F13 LANDA PARK TOUR

Address: 350 Aquatic Circle New Braunfels TX 78130

Miles/Minutes: 1.2 Mi/4 Min

Description:

Tour historic, lively Landa Park via the park mini-train, with short walking intervals. Train will make stops at key sites in the park, where attendees will tour the William and Dolores Schumann Arboretum, Founders Oak, New Braunfels NPSOT-maintained gardens, and special historic sites, such as a vintage gazebo from 1900 on the edge of Landa Lake. The Dolores and Bill Schumann Arboretum is home to over 80 species of trees making it one of the most diverse arboretums in Texas. This arboretum acts as a "living library" of trees, providing a classroom setting for the study of botany, arboriculture, and other popular interests.

Links:

General Landa Park Information: <https://newbraunfels.gov/3375/Landa-Park>

Map: <https://newbraunfels.gov/DocumentCenter/View/2335/Arboretum-Trail-Map>

Arboretum Guide/Plant List: <https://newbraunfels.gov/DocumentCenter/View/18110/Rev-Arboretum-Guide>

Field Trip Leaders: Gail Groves, Aleta Meyer, and urban forester Jack Hill

Difficulty: Easy

Wheelchair/ADA Accessible: Yes

Start Time: 1:30 PM

Estimated Duration: 1.5-1.75 Hr

Maximum Number of Attendees: 40

Fees: No

Facilities: Yes

Other: Carpooling recommended; Group will meet at the mini train station, next to Landa Haus

Written Directions:

Head northwest on S Castell Ave toward W Coll St
420 ft

Turn right onto W Coll St
463 ft

Turn left onto S Seguin Ave
0.2 mi

At Main Plaza, take the 4th exit onto N Seguin Ave/State Spur 453
Continue to follow N Seguin Ave
0.2 mi

Continue onto Landa St
0.3 mi

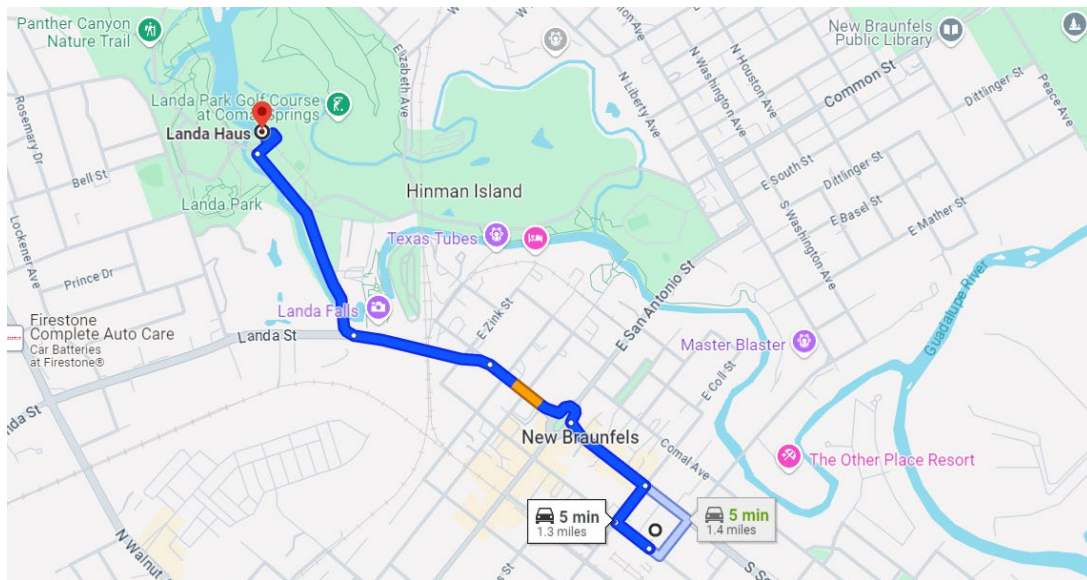
Turn right onto Landa Park Dr
0.4 mi

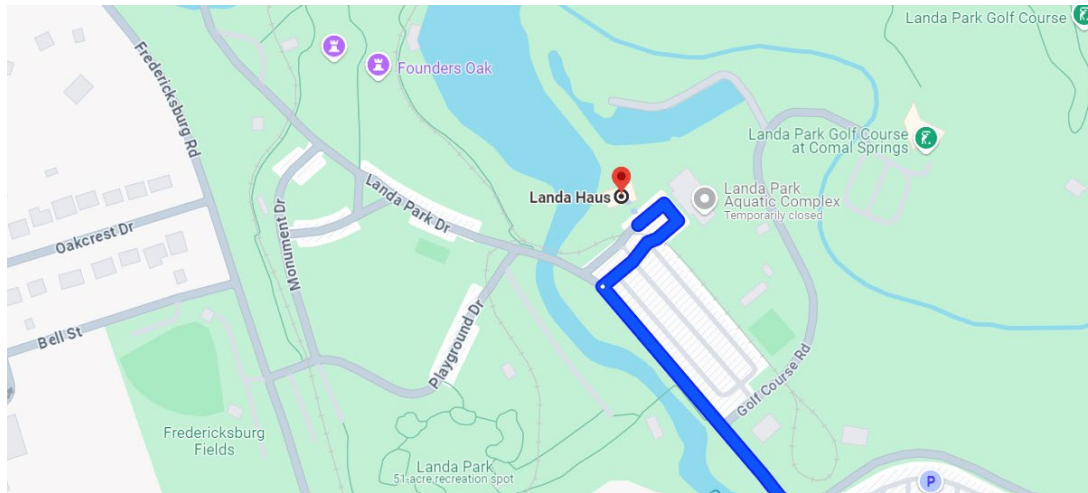
Turn right onto Aquatic Cir
Destination will be on the right
387 ft
Landa Haus

360 Aquatic Cir, New Braunfels, TX 78130

Google Map Link:

<https://www.google.com/maps/dir/New+Braunfels+Civic%2FConvention+Center,+South+Castell+Avenue,+New+Braunfels,+TX/Landa+Haus,+Aquatic+Circle,+New+Braunfels,+TX/@29.7044621,-98.1378052,15z/data=!3m1!4b1!4m14!4m13!1m5!1m1!1s0x865cbd686a7a3355:0xbb436e3f7515f168!2m2!1d-98.121757!2d29.700028!1m5!1m1!1s0x865c97e29ef9486d:0x922d8ec0693f6f4!2m2!1d-98.1340446!2d29.7108405!3e0?entry=ttu>





F14 CANYON LAKE GORGE / DINOSAUR TRACKS

Address: 16029 S Access Rd, Canyon Lake 78133

Miles/Minutes: 18 mi/31 min

Description:

This trip is an adventure more than 110-million years into the past. The Canyon Lake Gorge was carved by the flood of 2002 when more than 67,000 cubic feet of water per second flowed over the spillway of Canyon Lake, marking the first time the spillway was used since the reservoir was completed in 1964. The power of water sliced open the ground below the spillway, exposing more than 110-million-year-old cretaceous limestone, fossils and even dinosaur footprints, unearthing a geological wonder. During guided public tours, visitors will hike 1.25 miles along exposed early cretaceous limestone formations, follow aquifer waters coursing through the Gorge as springs, channels and waterfalls, and see dinosaur footprints. Tour Highlights include geological exposures, exposed faults, fossil treasures, dinosaur footprints, aquifer in action, beautiful lagoons, surprising waterfalls, and dramatic vistas. The tour will be a slow-paced walk through the Gorge with several stopping points for photos and educational information.

Links:

https://canyongorgetours.com/private_tour

<https://canyongorgetours.com/>

Field Trip Leader: Canyon Lake Gorge Volunteers

Difficulty: Moderate/Slow-paced

Wheelchair/ADA Accessible: No

Start Time: 1:45 PM

Estimated Duration: 3 hours

Maximum Number of Attendees: 20

Fees: \$20

Facilities: Yes

Other: Carpooling recommended

Written Directions:

Take W Lincoln St and S Union Ave to Common St
4 min (0.9 mi)

Continue on Common St. Drive from FM306 to Canyon Lake
25 min (16.4 mi)

Turn left

Restricted usage road

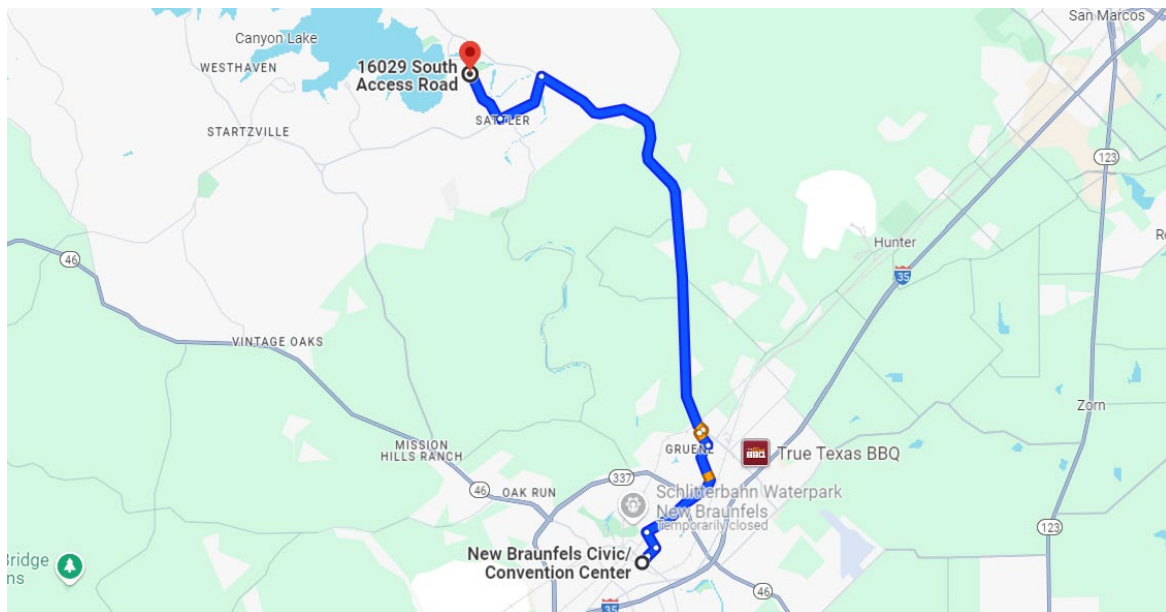
Destination will be on the left

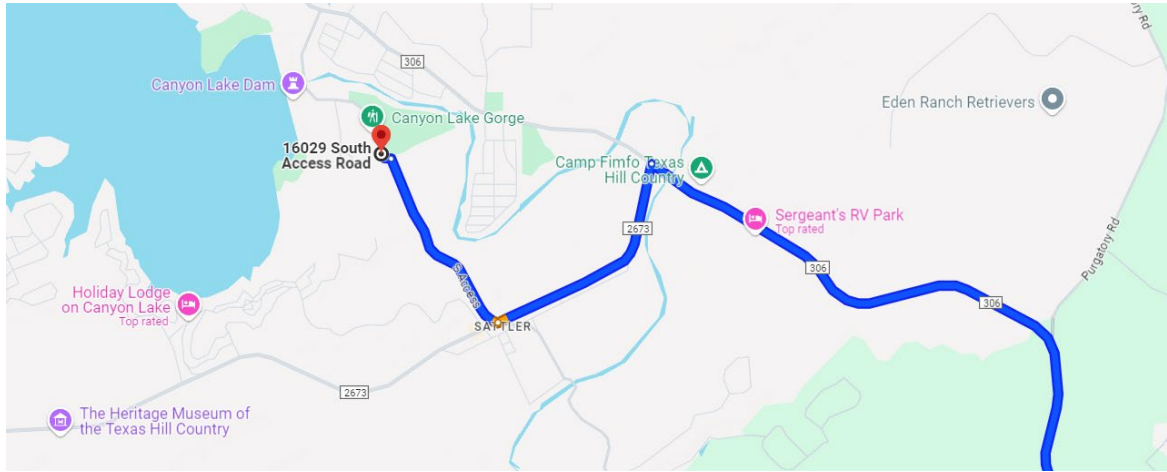
54 sec (367 ft)

16029 S Access Rd

Canyon Lake, TX 78133

Google Map Link: <https://maps.app.goo.gl/ZEhR25RDkH7ymXCGA>





F15 PANTHER CANYON TRAIL

Address: 15 Gazebo Cir, New Braunfels, TX 78130

Miles/Minutes: 1.5 Mi/6 Min

Description:

Panther Canyon is a 49 acre area adjacent to Landa Park with a recent volunteer-built rim trail addition which added an 0.8 mile segment creating the 1.8 trail loop. Panther Canyon Trail begins near the headwaters of the Comal Springs, which are fed by waters of the Edwards Aquifer emerging within the Balcones fault zone. The trail ascends the Balcones Escarpment into the Edwards Plateau under the shade of oaks, Ashes juniper, cedar elm, and understory trees including Mexican Buckeye, kidneywood, and Texas persimmon. The trail crosses a dry creek bed of ephemeral stream that only flows during or immediately after a rain. The trail covers over 49 acres and is home to many native plants and wildlife.

Links:

<https://newbraunfels.gov/Facilities/Facility/Details/Panther-Canyon-Nature-Trail-83>

Map: <https://newbraunfels.gov/DocumentCenter/View/11298>

<https://newbraunfels.gov/3375/Landa-Park>

Field Trip Leaders: John Davis

Difficulty: Moderately strenuous due to elevation changes; uneven surfaces

Wheelchair/ADA Accessible: No

Start Time: 1:30 PM

Estimated Duration: 1.5 Hr

Maximum Number of Attendees: 40 (in multiple groups)

Fees: No

Facilities: Not on trail (restrooms are available in adjacent Landa Park)

Other: Carpooling recommended

Written Directions:

Head northwest on S Castell Ave toward W Coll St
420 ft

Turn right onto W Coll St
463 ft

Turn left onto S Seguin Ave
0.2 mi

At Main Plaza, take the 4th exit onto N Seguin Ave/State Spur 453
Continue to follow N Seguin Ave
0.2 mi

Continue onto Landa St

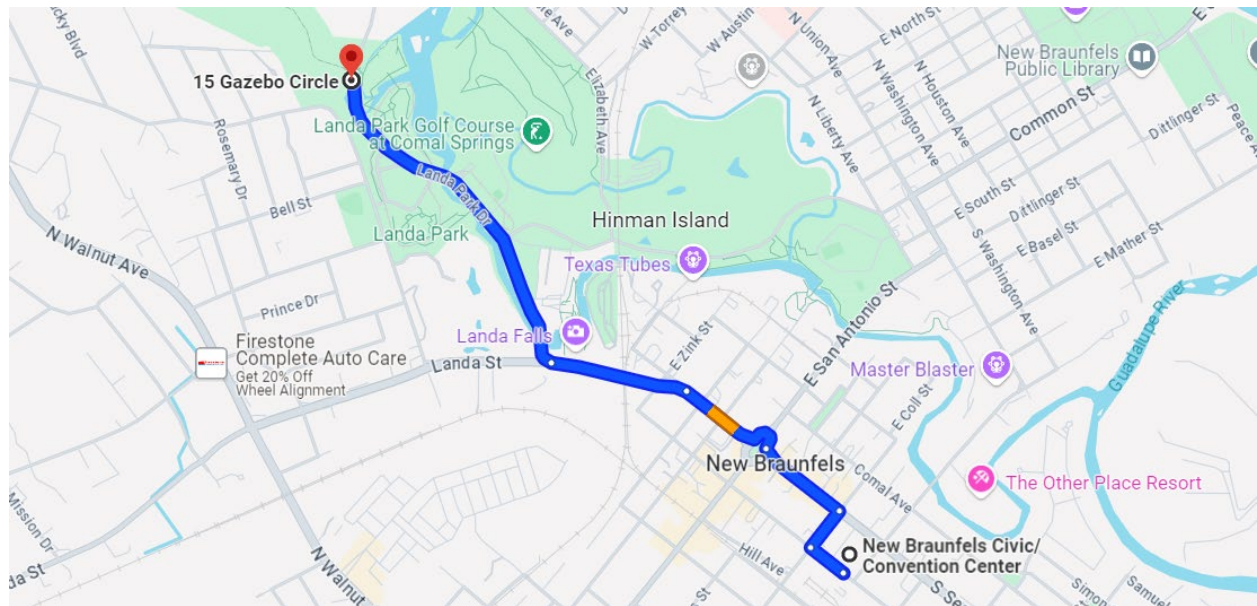
0.3 mi

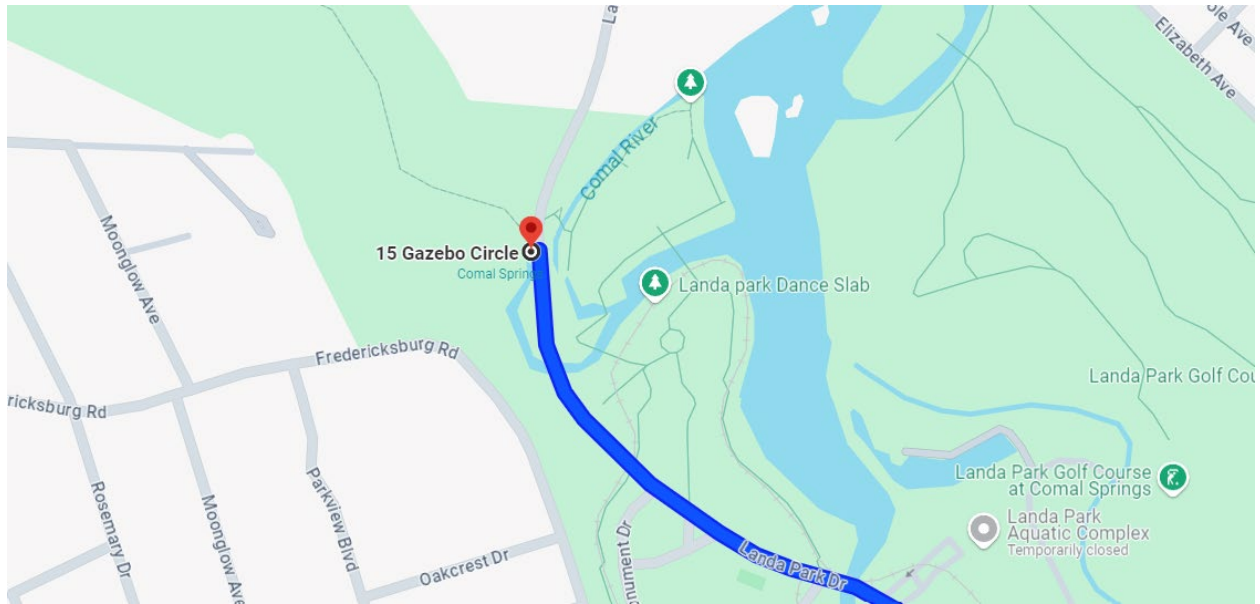
Turn right onto Landa Park Dr
Destination will be on the left

0.7 mi

15 Gazebo Cir
New Braunfels, TX 78130

Google Map Link: <https://maps.app.goo.gl/WSCk5HTcmTMjQYUX7>





F16 HEADWATERS AT THE COMAL

Address: Headwaters at the Comal: 333 E Klingemann St, New Braunfels, TX 78310

Miles/Minutes: 7 Min/2.1 Mi

Description:

Come tour the Headwaters at the Comal, an ongoing multi-phase restoration project located around the uppermost springs feeding the Comal River. Enjoy a close look at the native savanna and riparian woodland areas, reclaimed from the large expanses of asphalt and sheet metal buildings remaining from a retired utility facility. To date, over 500 species have returned to the property following extensive restoration efforts. Plant species installed on the site were carefully selected to reflect the regional diversity found at the meeting of the Edwards Plateau and Blackland Prairie ecoregions. The continuing restoration will continue the transformation of the property and facilities into an innovative, nature-oriented community space.

Links:

<https://headwatersatthecomal.com/>

Field Trip Leaders: Headwaters at the Comal Staff

Difficulty: Easy; decomposed granite, concrete, and rubberized trails with slight elevation changes

Wheelchair/ADA Accessible: No; however, the trip is possible with a motorized wheelchair

Start Time: 1:30 PM

Estimated Duration: 1 Hour

Maximum Number of Attendees: 20

Fees: \$5

Facilities: Yes

Other: Carpooling recommended

Written Directions:

Head southeast on S Castell Ave toward W Garden St
125 ft

Turn left onto W Garden St
0.2 mi

Continue onto W Lincoln St
0.3 mi

Turn left onto S Union Ave
0.4 mi

Continue straight
381 ft

Continue onto N Union Ave
0.5 mi

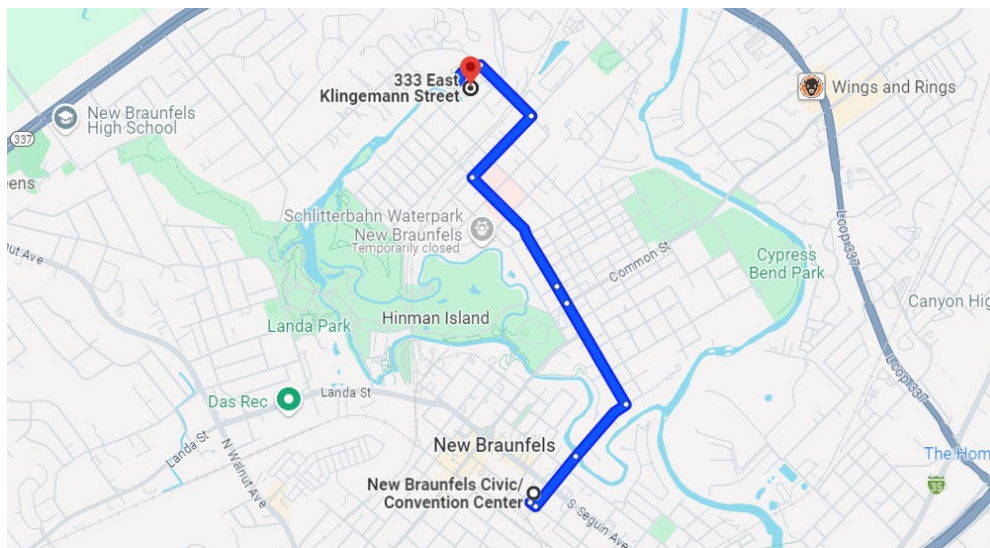
Turn right onto E Torrey St
0.3 mi

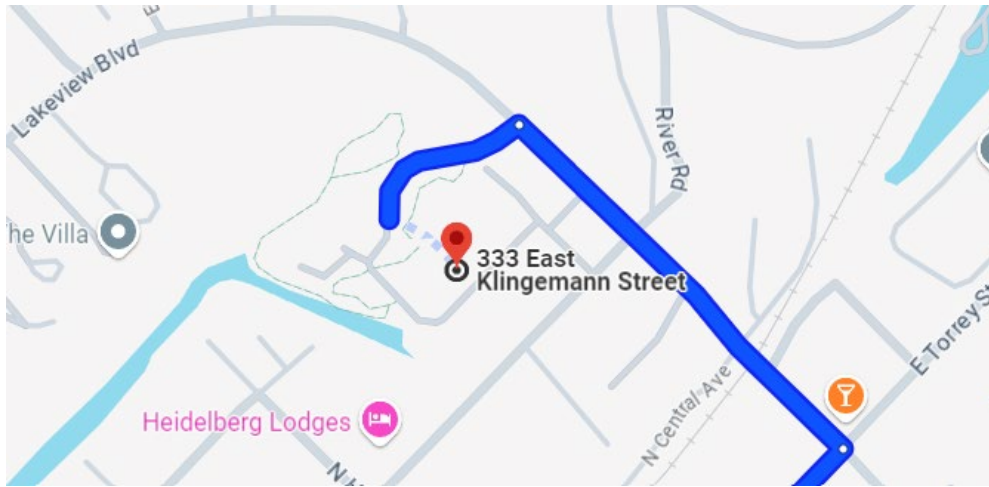
Turn left onto Lakeview Blvd
0.3 mi

Turn left
Restricted usage road
Destination will be on the left

0.1 mi
333 E Klingemann St
New Braunfels, TX 78130

Google Map Link: <https://maps.app.goo.gl/6LsufWepM9xTrZ3z6>





F17-A LINDHEIMER HAUS/HEADWATERS AT THE COMAL

Address:

Stage 1 - Lindheimer Haus: 491 Comal Ave, New Braunfels, TX 78130

Stage 2 - Headwaters at the Comal: 333 E Klingemann St, New Braunfels, TX 78310

Miles/Minutes:

Stage 1 – Convention Center to Lindheimer Haus: 1 Min/.03 Mi

Stage 2 – Lindheimer House to Headwaters at the Comal: 7 Min/2.1 Mi

Description:

In this two-stage field trip, you will start at the Lindheimer Haus and then move to the Headwaters at the Comal, (this trip is the same content as F17-B, but with stages in reverse order).

In the first stage, you will tour the home and the small garden of Ferdinand J. Lindheimer in two groups. Lindheimer is considered the Father of Texas Botany, and you will learn about his life in the 1800s and his contributions to botanical research. Lindheimer Haus is one of the finest examples of traditional fachwerk construction, in which timber beams are infilled with brick or rock, and sometimes covered with plaster. It has two front rooms, each with its own front door, which was common with Germans but uncommon with their Anglo neighbors. The gardens around the house contain some of the plants that Lindheimer catalogued.

In the second stage, come tour the Headwaters at the Comal, an ongoing multi-phase restoration project located around the uppermost springs feeding the Comal River. Enjoy a close look at the native savanna and riparian woodland areas, reclaimed from the large expanses of asphalt and sheet metal buildings remaining from a retired utility facility. To date, over 500 species have returned to the property following extensive restoration efforts. Plant species installed on the site were carefully selected to reflect the regional diversity found at the meeting of the Edwards Plateau and Blackland Prairie ecoregions. The continuing restoration will continue the transformation of the property and facilities into an innovative, nature-oriented community space.

Links:

<https://www.loc.gov/item/tx0134/>

<https://theclio.com/entry/60563>

<http://www.greatstems.com/2012/05/a-visit-to-the-home-of-lindheimer-father-of-texas-botany.html>

<https://headwatersatthecomal.com/>

Field Trip Leaders: New Braunfels Conservation Society Jerry Finke (Texas Master Gardener); Headwaters at the Comal Staff

Difficulty: Lindheimer Haus is easy, but includes stairs. Headwaters at the Comal trail is Easy, with decomposed granite, concrete, and rubberized trails with slight elevation changes on the .25 mile trail.

Wheelchair/ADA Accessible: No

Start Time:

Stage 1 - 1:30 PM

Stage 2 – 2:45 PM

Estimated Duration: 2.25 Hours

Stage 1 – Lindheimer Haus: 1 Hour

Stage 2 – Headwaters at the Comal: 1 Hour

Maximum Number of Attendees: 20**Fees:** \$8**Facilities:** Yes**Other:** Carpooling recommended**Written Directions:****Stage 1:**

Head southeast on S Castell Ave toward W Garden St
125 ft

Turn left onto W Garden St
0.2 mi

Turn right onto Comal Ave
Destination will be on the left

466 ft
Lindheimer Home
491 Comal Ave, New Braunfels, TX 78130

Stage 2:

Head northwest on Comal Ave toward E Garden St
466 ft

Turn right at the 1st cross street onto E Garden St
295 ft

Continue onto W Lincoln St
0.3 mi

Turn left onto S Union Ave
0.4 mi

Continue straight
381 ft

Continue onto N Union Ave
0.5 mi

Turn right onto E Torrey St
0.3 mi

Turn left onto Lakeview Blvd
0.3 mi

Turn left
Restricted usage road
Destination will be on the left

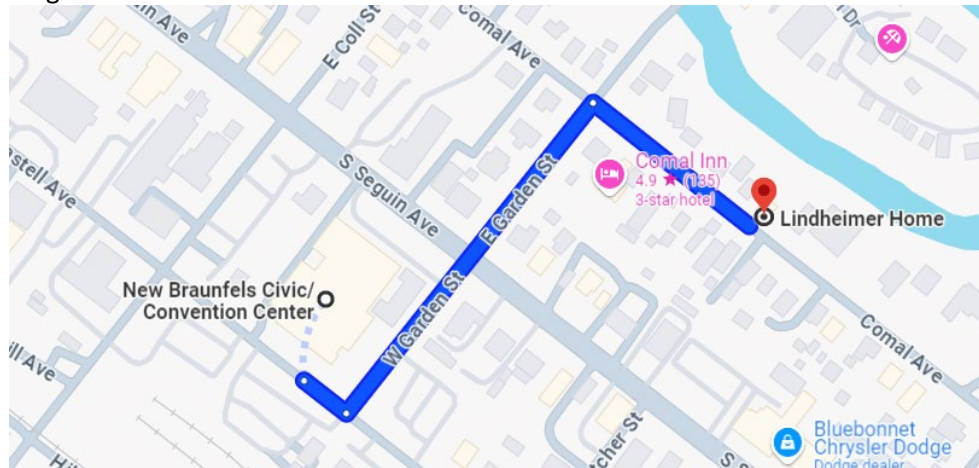
0.1 mi
333 E Klingemann St
New Braunfels, TX 78130

Google Map Link:

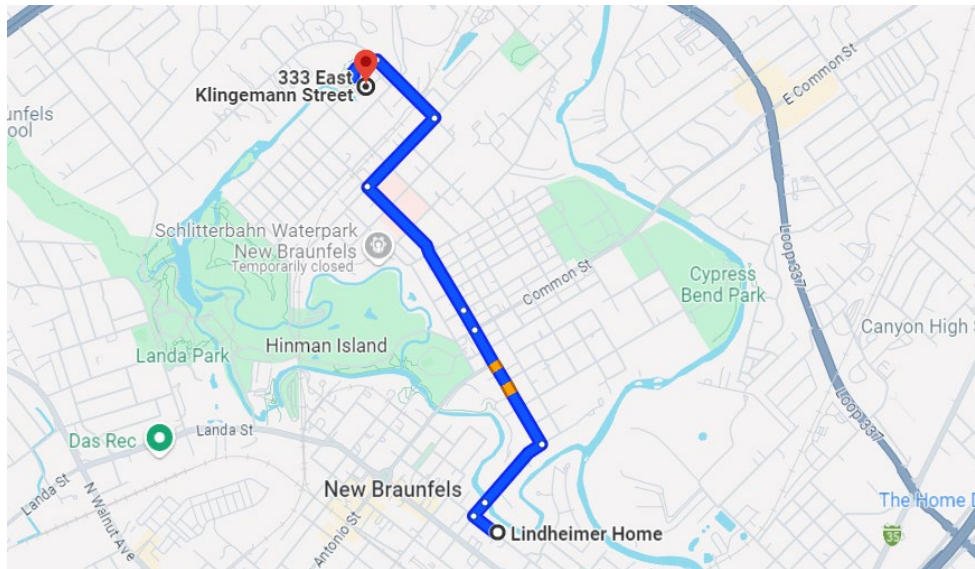
Stage 1: <https://maps.app.goo.gl/E34WeEA7UEYP3w8H7>

Stage 2: <https://maps.app.goo.gl/njr6puGtAGjHzast8>

Stage 1:



Stage 2:



F17-B HEADWATERS AT THE COMAL/LINDHEIMER HAUS

Address:

Stage 1 - Headwaters at the Comal: 333 E Klingemann St, New Braunfels, TX 78310

Stage 2 - Lindheimer Haus: 491 Comal Ave, New Braunfels, TX 78130

Miles/Minutes:

Stage 1 – Convention Center to Headwaters at the Comal: 8 Min/2.3 Mi

Stage 2 – Headwaters at the Comal to Lindheimer Haus: 7 Min/2.1 Mi

Description:

In this two-stage field trip, you will start at the Headwaters at the Comal and then move to the Lindheimer Haus, (this trip is the same content as F17-A, but with stages in reverse order).

In the first stage, come tour the Headwaters at the Comal, an ongoing multi-phase restoration project located around the uppermost springs feeding the Comal River. Enjoy a close look at the native savanna and riparian woodland areas, reclaimed from the large expanses of asphalt and sheet metal buildings remaining from a retired utility facility. To date, over 500 species have returned to the property following extensive restoration efforts. Plant species installed on the site were carefully selected to reflect the regional diversity found at the meeting of the Edwards Plateau and Blackland Prairie ecoregions. The continuing restoration will continue the transformation of the property and facilities into an innovative, nature-oriented community space.

In the second stage, you will tour the home and the small garden of Ferdinand J. Lindheimer in two groups. Lindheimer is considered the Father of Texas Botany, and you will learn about his life in the 1800s and his contributions to botanical research. Lindheimer Haus is one of the finest examples of traditional fachwerk construction, in which timber beams are infilled with brick or rock, and sometimes

covered with plaster. It has two front rooms, each with its own front door, which was common with Germans but uncommon with their Anglo neighbors. The gardens around the house contain some of the plants that Lindheimer catalogued.

Links:

<https://headwatersatthecomal.com/>

<https://www.loc.gov/item/tx0134/>

<https://theclio.com/entry/60563>

<http://www.greatstems.com/2012/05/a-visit-to-the-home-of-lindheimer-father-of-texas-botany.html>

Field Trip Leaders: Headwaters at the Comal Staff; New Braunfels Conservation Society Jerry Finke (Texas Master Gardener)

Difficulty: Headwaters at the Comal trail is Easy, with decomposed granite, concrete, and rubberized trails with slight elevation changes on the .25 mile trail. Lindheimer Haus is easy, but includes stairs.

Wheelchair/ADA Accessible: No

Start Time:

Stage 1 - 1:30 PM

Stage 2 – 2:45 PM

Estimated Duration: 2.25 Hours

Stage 1 – Headwaters at the Comal: 1 Hour

Stage 2 – Lindheimer Haus: 1 Hour

Maximum Number of Attendees: 20

Fees: \$8

Facilities: Yes

Other: Carpooling recommended

Written Directions:

Stage 1:

Head southeast on S Castell Ave toward W Garden St
125 ft

Turn left onto W Garden St
0.2 mi

Continue onto W Lincoln St
0.3 mi

Turn left onto S Union Ave
0.4 mi

Continue straight
381 ft

Continue onto N Union Ave
0.5 mi

Turn right onto E Torrey St
0.3 mi

Turn left onto Lakeview Blvd
0.3 mi

Turn left
Restricted usage road
Destination will be on the left

0.1 mi
333 E Klingemann St
New Braunfels, TX 78130

Stage 2:

Head north toward Lakeview Blvd

Restricted usage road

0.1 mi

Turn right onto Lakeview Blvd

0.3 mi

Turn right onto E Torrey St

0.3 mi

Turn left onto N Union Ave

1.0 mi

Turn right onto W Lincoln St

0.3 mi

Continue onto E Garden St

295 ft

Turn left onto Comal Ave

Destination will be on the left

466 ft

Lindheimer Home

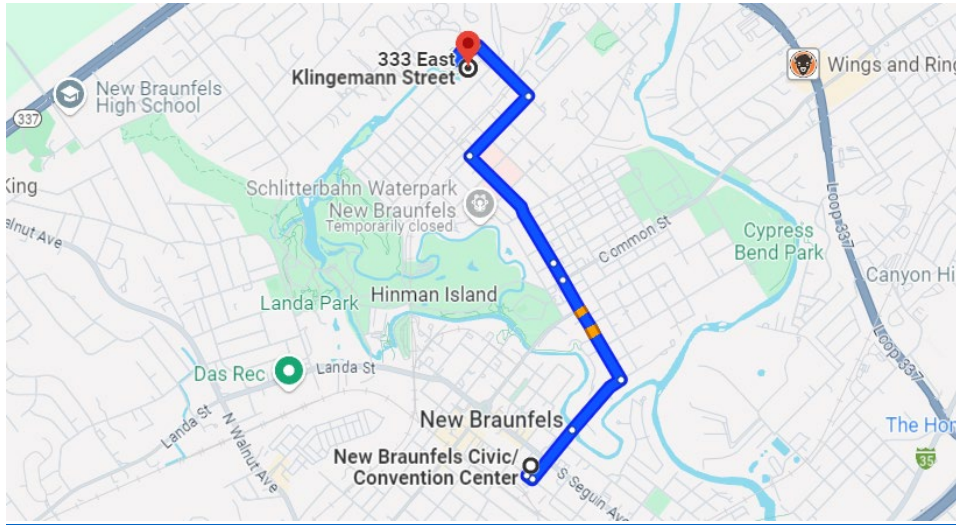
491 Comal Ave, New Braunfels, TX 78130

Google Map Link:

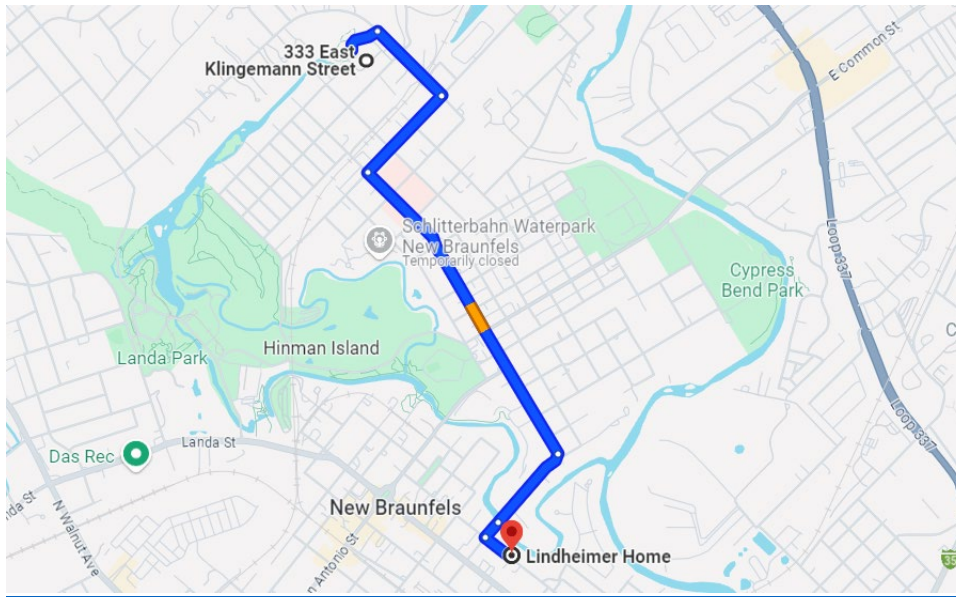
Stage 1: <https://maps.app.goo.gl/6LsufWepM9xTrZ3z6>

Stage 2: <https://maps.app.goo.gl/QTU9mvvvNjGWMom39>

Stage 1:



Stage 2:



BRACKEN BAT CAVE NIGHT FLIGHT EVENT

Address: 7515 Bracken Cave Road, San Antonio, 78266

21.5 Miles/35 Minutes

Description:

While the standard Night Flight event period ends in September due to shorter days, Bat Conservation International (BCI) will conduct a special Night Flight for a limited number of Fall Symposium attendees on Friday evening. Advanced reservations are required; no day of event sales.

Bracken Cave is a maternity roost each year for Mexican free-tailed bats (*Tadarida brasiliensis*). The cave becomes the home of more than 15 million bats as the mothers and their now flying pups take to the sky each night, making it the world's largest bat colony and one of the largest concentrations of mammals on earth. The emergence of these millions of bats, as they spiral out of the cave at dusk for their nightly insect hunt, is an unforgettable sight. Access inside the cave is not permitted to protect the bats from disease or disruption of the colony. Attendees will have great view opportunities just outside the cave.

Note: If an attendee registers for both the afternoon Bracken Cave Field Trip and the Night Flight event, they will have to leave the preserve after completing the field trip and return when the gate opens for the Night Flight. During this time away from the preserve, registrants can take the opportunity to visit Natural Bridge Caverns next door or eat at Garden Ridge.

Links

Bracken Cave: <https://www.batcon.org/see-bats-live/visit-bracken-cave-preserve/>

Webcam: <https://www.batcon.org/experience-bats/tbat-channel/>

Natural Bridge Cavern:

https://naturalbridgecaverns.com/?utm_source=TWA&utm_medium=google&gad_source=1&gclid=Cj0KCQjwsaqzBhDdARIsAK2gqnfWkwczHfYB_il5PJau8CtVfRScuexiuFekTsnDJjK06bnpOLWJRy4aAgG3EALw_wcB

Event Leader: Bracken Cave Preserve Volunteers

Difficulty: Moderate; rough and uneven terrain

Wheelchair/ADA Accessible: No

Gate opens for those registered: 6 PM

Gate Closes and not further entry: 6:15 PM

Sunset: 7:06 PM

Experience Ends: 8:00PM

Estimated Duration: 2 Hrs

Maximum Number of Attendees: 60

Fees: \$10.00

Facilities: Yes

Other: Carpooling is highly recommended because entry is controlled via gate. Once the gate is closed, entry will not be possible.

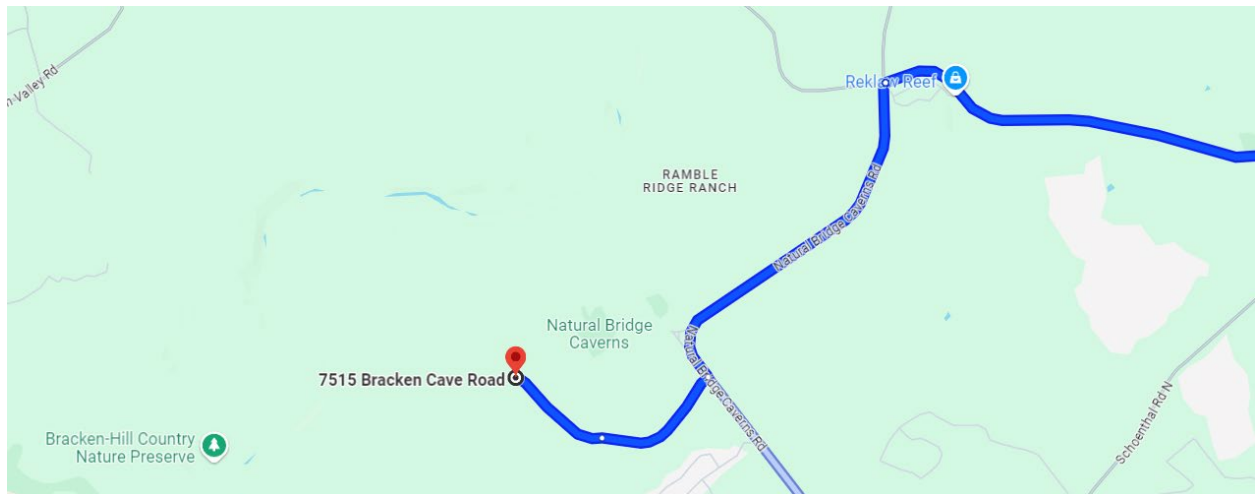
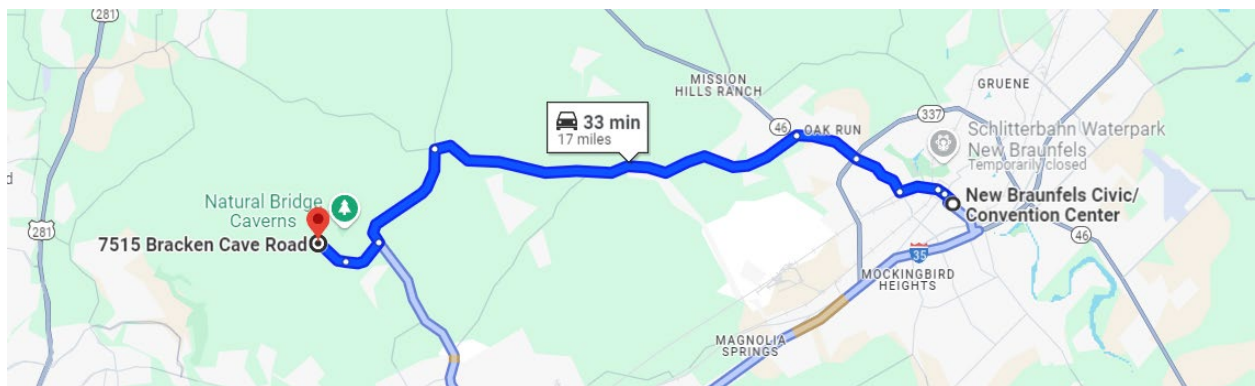
Written Directions:

Take W Coll St to S Seguin Ave
51 sec (0.2 mi)

Take FM1863 and Natural Bridge Caverns Rd to Bracken Cave Rd
23 min (15.1 mi)

Follow Bracken Cave Rd to your destination
7 min (1.7 mi)
7515 Bracken Cave Rd
San Antonio, TX 78266

Google Map Link: <https://maps.app.goo.gl/5ZdKyyz9UdS8Fo8S6>



SECTION FIVE: SPONSORS AND DONORS

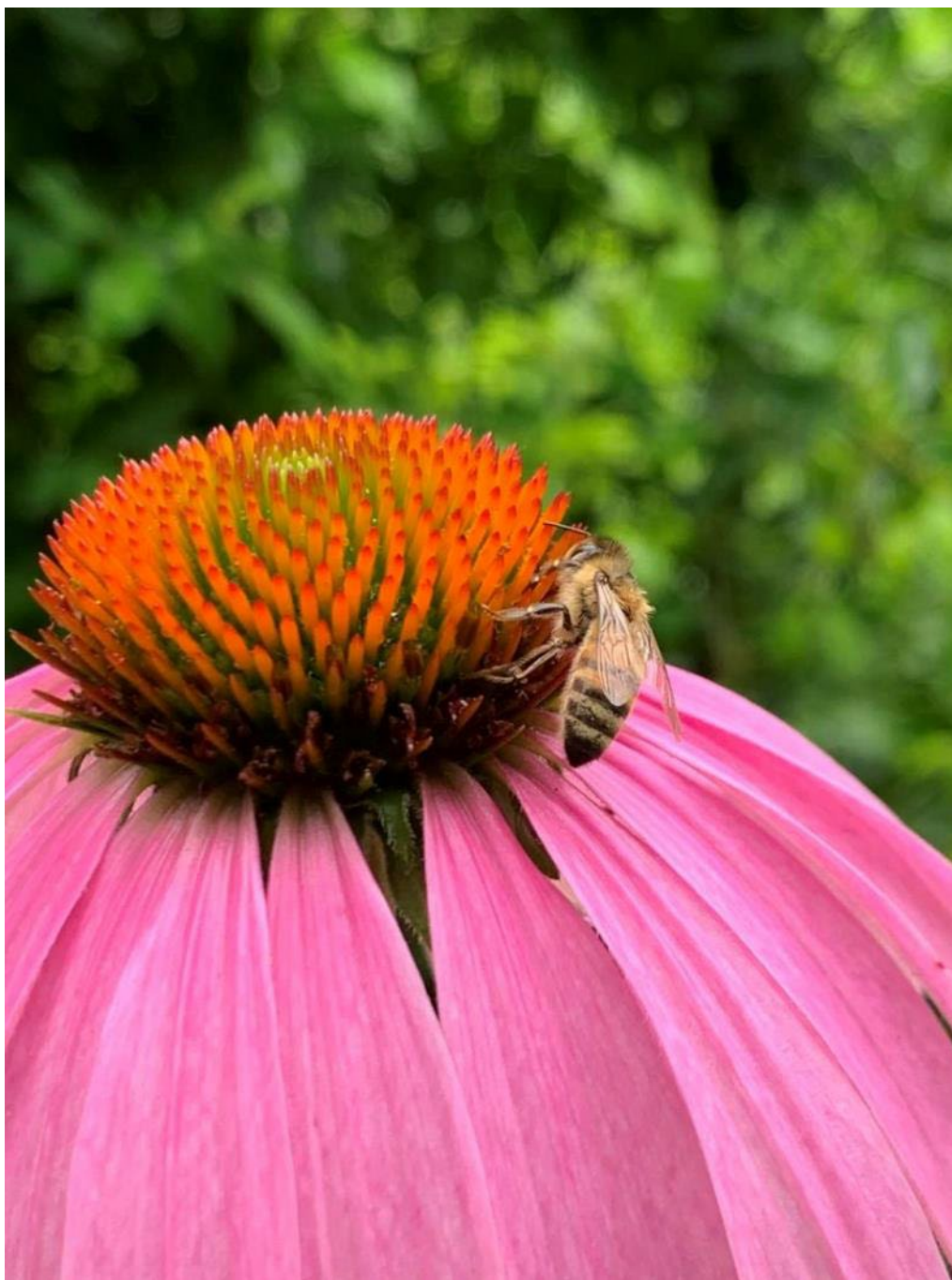


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*Promoting conservation, research and utilization of native plants
and plant habitats of Texas through education, outreach and example.*

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