

The Brazos Bend Bugle

Brazos Bend State Park Volunteer Organization

Volume 34, Issue 3 May 2021



President's Message

by Wayne Wiegand

Volunteering in a Pandemic

Fellow Volunteers,

I would like to take a moment to thank you for all the hours that you have spent volunteering at Brazos Bend State Park to date. Since the park reopened in 2020 after the COVID shutdown, Park visitation has been very strong. Volunteer opportunities are "wide open" especially in the Nature Center and Gift Shop. I strongly encourage you to return to volunteering at the Park, especially those of you that are now fully vaccinated. You can still wear a mask for additional protection and it should be noted that many of

the Park visitors are wearing masks. Your presence in the Park enriches the experience of our visitors and you are simply irreplaceable! I have linked our website for convenience: <http://www.brazosbend.org/>

Thanks for all you do!

Wayne



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Even Weather is Bigger in Texas

If you've lived in Texas for more than a year you'll understand the jokes about Texas weather. What other state boasts a morning forecast of 17 degrees with winter ice storms followed by sunny 80 degree afternoons? Which state hosts all four seasons in a single day? Savvy Texans understand the need for high clearance vehicles for any attempts at road travel between April and June each year. Hurricanes, tropical storms, tornados, river floods, hail storms and excessive heat are somewhat routine here. Even arctic freezes occur rather predictably each decade although this year 2021 experienced historic



statewide power outages. Texas seasons are immortalized in local folklore. Stevie Ray Vaughn's song "Texas Flood" is a local favorite. Texans are determined and resilient no matter what the outdoor conditions might be. Here at the Park BBSPVO Volunteers continually adapt to ever-changing environmental challenges. As the covid pandemic culture shifts focus with fluctuating guidance and evolving restrictions, BBSPVO Volunteers continue

to find new ways to interact with Park visitors. The 2020 Christmas Bird Count had enthusiastic attendance despite climate restrictions. Spring Break weeks' volumes were higher than last year as Park staff and Volunteers created memorable experiences for visitors.



With exception of periodic Park closures, nothing can deter the BBSPVO's passionate Volunteers and fellow BBSP Park Hosts from showing up to provide the best possible experiences for visitors each day. Neither wind, nor rain, nor ice, nor hail, nor arctic freeze, nor covid nor Texas Flood - well, maybe a flood - will prevent us from sharing a common joy in the delights of all the Park has to offer.



Visit the Park Facebook page here: https://www.facebook.com/pg/BrazosBendStatePark/videos/?ref=page_internal





2020 Christmas Bird Count

Janey Woodley

The 35th annual Brazos Bend Christmas Bird Count was held Saturday, December 19, 2020. Despite heavy rain in the afternoon shortening the counting time and the loss of several properties due to COVID restrictions, 55 counters found 145 species which is the average over the history of the count. Six of the species found were considered to be rare for Fort Bend County.

The Big Bird award went to Mark Scheuerman's team for a **Pacific Slope Flycatcher** found in the equestrian area of the Park. This is the first time this

species has ever been seen in Fort Bend County! It's normal winter range is

the West coast of Mexico. The rest of the year it is found on the West coast of the US. Several members of the BBSPVO are regular participants of the count.

Unfortunately, the Count Dinner (always the highlight!) had to

be cancelled due to COVID restrictions. But most of us were just happy to be out doing what we love to do!



Go here for samples of the **Pacific Slope Flycatcher** birdsongs and more information about migration patterns, conservation and habitat:

<https://www.audubon.org/field-guide/bird/pacific-slope-flycatcher>

Springtime! at Brazos Bend

Chuck Duplant

photo credits Chuck Duplant

Springtime is a special time in Brazos Bend. The battle of seasonal changes brings the springtime winds and sunny warm days with an occasional cool front slipping in (almost sounds like last winter). These changes can be seen in animal life and plant cycles. As the winter migrants leave, the springtime animals and plants return. We start seeing flowers, butterflies and a variety of insects. Some of these are springtime specialties, only here for a short time or bloom in the spring. Here are a few spring time specialties to look for as you enjoy a Brazos Bend Spring.

Butterweed, *Packera glabella*, though it blooms for several months it is one of our first flowers to bloom. As of Feb. 7th I had already seen a few plants blooming. Look for this plant throughout the park along the roadways, parking lots, camping sites and trailsides. Many insects will visit this flower such as butterflies, native bees, flies, beetles and moths.



Falcate Orangetip, *Anthocharis midea*, this small white butterfly has a very short flight season of 3 to 4 weeks in March in the park. The caterpillar has spent the last year feeding and the chrysalis hibernates over winter waiting on spring. Found in wooded areas along creeks this butterfly



can be seen in the camping loops, White Oak trail, Bayou trail and Red Buckeye trail. I have only seen this butterfly in small numbers usually less than 10 individuals in the season making it one of my favorite butterflies to see each year.

Spider Lily, *Hymenocallis liriosme*, this large white flower is one that many visitors come out to see and photograph each spring. When conditions are right this flower can grow in very large patches in the the prairie. Growing from a bulb this semi aquatic plant is like no other with its distinctive flower shape.

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Springtime! at Brazos Bend

Chuck Duplant

Spider Lily, *Hymenocallis liriosme*, This field of Spider Lilies was due to a winter prairie burn and just the right amount of rain and sun. It was the most spectacular bloom I have seen at the park.



Vesper Bluet, *Enallagma vesperum*, Though small it is one of the larger Bluets. With a flight season of late March to September. I am surprised to have only



seen it in April and May in the park. This is probably due to it being one of the few

Damselflies that is active in late evening. I find it along the shore line of 40 Acre Lake early in the morning and usually only find a few individuals. Note: Not all Bluets are Blue

Ten-Petal Anemone, *Anemone berlandieri*, also called the Wind Flower in belief that the spring winds were needed to blow open the the flower. Blooming in March this small flower comes in blue and white forms and attracts a variety of small insects. Found throughout the park I have consistently found it near the White Oak/ Red Buckeye trail head at Hale Lake and along the Spillway trail.



This is only a few of the springtime specialties to look for as you get out this spring. So enjoy them while they are out and look for other spring specialties as you explore Brazos Bend this spring.

photo credits Chuck Duplant

Springtime! Spring Break at Brazos Bend



photo credits Montse Canedo



The George Observatory Reopens to Public

Wayne Wiegand

After being closed for nearly 2 years for remodeling, the George Observatory reopened on March 19 and 20th. Going forward, a limited number of tickets for Saturday Public Nights are available at the Houston Museum of Natural Science [online box office](#). At this time, there will be no tickets available on site.

In addition to having a ticket, there are COVID restrictions to enter the Learning Center and to go up on the deck.

- Masks and social distancing will be required
- Visitors may not go into the domes to view through the telescope eyepiece.

Instead of viewing through the telescopes themselves, images using cameras will be sent to monitors outside of the domes. This is referred to as Electronic Assisted Astronomy (EAA). The cameras are inserted into the telescopes instead of an eyepiece. EAA allows the staff to achieve social distancing as the domes interiors have limited space. There will be staff on the outside of the domes to explain the images and answer questions.

Since 1994, our park has been home to the George Observatory, a satellite facility of the Houston Museum of Natural Science. The Observatory is one of the key attractions for the Park. The Observatory contains three

domed telescopes and includes the Challenger

Learning Center for space science education. The largest is the Gueymard Research Telescope, which has an aperture of 36 inches. This is the largest telescope in the USA that is open to the public on a regular basis. While the facility is primarily focused on public education, research was conducted with the telescopes in the domes. The research was conducted by Staff and amateur astronomers. One area of research was

locating new asteroids and defining their orbits. Over the years hundreds of asteroids were discovered. One of those asteroids was named **BRAZOS BEND**, which was discovered in April 2001. The photo

below shows Steve Killian, the Park

Superintendent at the time and Barbara Wilson, Staff Astronomer at HMNS.

An asteroid named Brazos Bend



photo credit Wayne Wiegand

Upper Texas Gulf Coastal Pothole Wetlands at Brazos Bend

Charles Pehl, PhD CPSS PG Soil Science

Brazos Bend State Park consists of 4,897 acres located in the Southeastern portion of Fort Bend County approximately 50 miles from the Houston Metropolitan area. The park, formerly the Hale Ranch, is operated by the Texas Parks and Wildlife Department as a wildlife management area which supports a variety of wildlife from



bobcats, marsh rabbit, raccoons and armadillos, to barn owls, red tail hawks, black vulchers, turkey vulchers, whistling ducks, herons, egrets,

Ibis, as well as turtles, venomous and nonvenomous snakes, and the Parks most popular, the top predator, the American alligator (*Alligator mississippiensis*).

Park Geology

Late in the Cenozoic Era, a great ice age covered the northern portion of North America with thick glacial sheets advancing and retreating in succession. These periods of extensive glaciation were separated by warmer inter-glacial periods. The most recent glacial advance The Wisconsin stage (115,000 years BP) is the latest glacial advance following the Sangamon interglacial stage. Texas was too far south for the glaciers, but local climate and sea levels underwent major changes with each glacial advance and retreat. Sea levels during glacial advances were from 300 to 400 feet lower than

today. Climate was warmer and more humid.

The Prairie grassland soils at Brazos Bend developed from loamy and clayey fluviomarine deposits derived from eroded igneous, metamorphic and sedimentary rock. This material was deposited as the sea levels retreated with the advancing glacier. Larger gravel and sand particles were deposited at or near the shore surf line, silt beyond the surf and smaller clay particles and beyond the silt. This continuum of particle size deposition moved inland with the rise in sea levels as the glacier retreated. The marine deposits resulted in the horizontal stratification of the gravel, sand, silt, clay found in The Willis, Lissie and Beaumont formations.

The fluvial (river born) deposits came from



the major rivers of Texas such as the Brazos, which meandered across the developing

coastal plane carrying more water, sand and gravel to the Gulf than currently. These deposits underlie the outer 50 or more miles of the modern Gulf Coastal Plain. The Beaumont Formation was originally laid down during the Sangamon interglacial period.

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Following the Beaumont deposition, in the late Wisconsin glacial stage, about 20,000 to 17,000 years BP, a returning glacial advance caused sea levels to drop to from 275 to 400 feet below present levels. As the last glacier retreated, the current Gulf Coast sea level stabilized between 5,000 to 3,500 years ago.

Park Ecosystems

Brazos Bend supports the great variety of wildlife previously described in two ecosystems, the products of fire and flood are identified within the Park. The first is riverine immersing wetlands and forested wetlands, developed primarily from surface water delivered by frequent flooding of the Brazos River and its tributary, Clear Creek. These wetlands are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. (CFR328.3(c) (4)). Further, these wetlands have a significant nexus with the Brazos River. Significant nexus means that a water, including wetlands, either alone or in combination with other similar saturated waters in the region, significantly affects the chemical, physical or biological integrity of a water identified in



paragraphs (a) (1) through (3) (CFR328.3 (c) (5)).

The second ecosystem, approximately 500 acres of native Gulf Coast Prairie grasslands is located at the front of the park above the Brazos floodplain, on the Beaumont Formation. The grass successional stage is preserved by

conducting prescribed burning every two to five years. The latest burn was conducted recently in early November 2020.

However within the park prairie grasslands there are small depressions known as Gulf Coast Pothole wetlands (CPW) that hold sufficient water to constitute wetlands (Jacob JS, 2011). The term pothole refers loosely to any coastal fresh water depressions which are inundated directly by precipitation and by runoff from the surrounding flats. According to CFR 328.3 (a) (7) (v) in Texas,

CPW are wetlands that occur in a mosaic of depressions, ridges, inter-mound flats, and mima mounds wetlands located along the Texas Gulf Coast. Approximately 30% of the prairies were once wetlands occurring in complexes with pimple mounds, small hummocks 1 to 2 feet in height, and intermound flats which formed thousands of years ago by ancient rivers and bayous modified through time by the action of climate and organisms.

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Upper Texas Gulf Coastal Pothole Wetlands at Brazos Bend

Charles Pehl, PhD CPSS PG Soil Science

However, very little is known about the complex relationship between these wetlands and the coastal prairie grassland ecosystems.

Soils on the Prairie Flats and in Depressions

At BBSP the soil series primarily associated with the prairie grassland flats developed from parent material of the Beaumont Formation:

- (1) Edna, fine, montmorillonitic, thermic Vertic Haplualfs,
- (2) Bernard, fine, montmorillonitic, thermic Vertic Argiaquolls and
- (3) Lake Charles, fine, montmorillonitic, hyperthermic Typic Hapluderts.

Soils of the prairie pothole depressions are:

- (1) Cieno series, fine-loamy, siliceous, active, hyperthermic Typic Vermaqualfs,
- (2) Leton series, fine-silty, siliceous, superactive, hyperthermic Typic Glossaqualfs.

Both depression series are hydric soils according to the Web Soil Survey, National Cooperative Soil Survey. Cieno has seasonal water perched from the soil surface to about 24 inches to 36 inches from September to June in normal years. Leton soils are ponded at depths of 2 to 6 inches above the surface from October to June in normal years. Soil of the flats

surrounding the Cieno series are primarily the Edna series, while flats surrounding the Leton series are primarily Bernard.

In the Brazos Bend there are several example of prairie pothole wetlands in the grassland area. The pothole with easiest access is at the end of a pier located adjacent to an observation platform at the beginning of the Prairie trail. The pier extends several feet out on to the pothole area. The dark areas around the depression, are the results of the recent



prescribed burn in early November, 2020. The two legumes to the left of the pier are rattlebush (*Sesbania drummondii*) a legume that is characteristic of the more permanent potholes. The area around the depression is mapped as Edna-Cieno complex (Ec) a frequently ponded complex, 0 to 1% slope (Figure 1). The red arrow shows the location of the prairie pothole wetland on the soil map. The Cieno series, a hydric soil, constitutes about 20% of the complex. The surrounding flat, the Edna series is not a hydric soil.

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Upper Texas Gulf Coastal Pothole Wetlands at Brazos Bend

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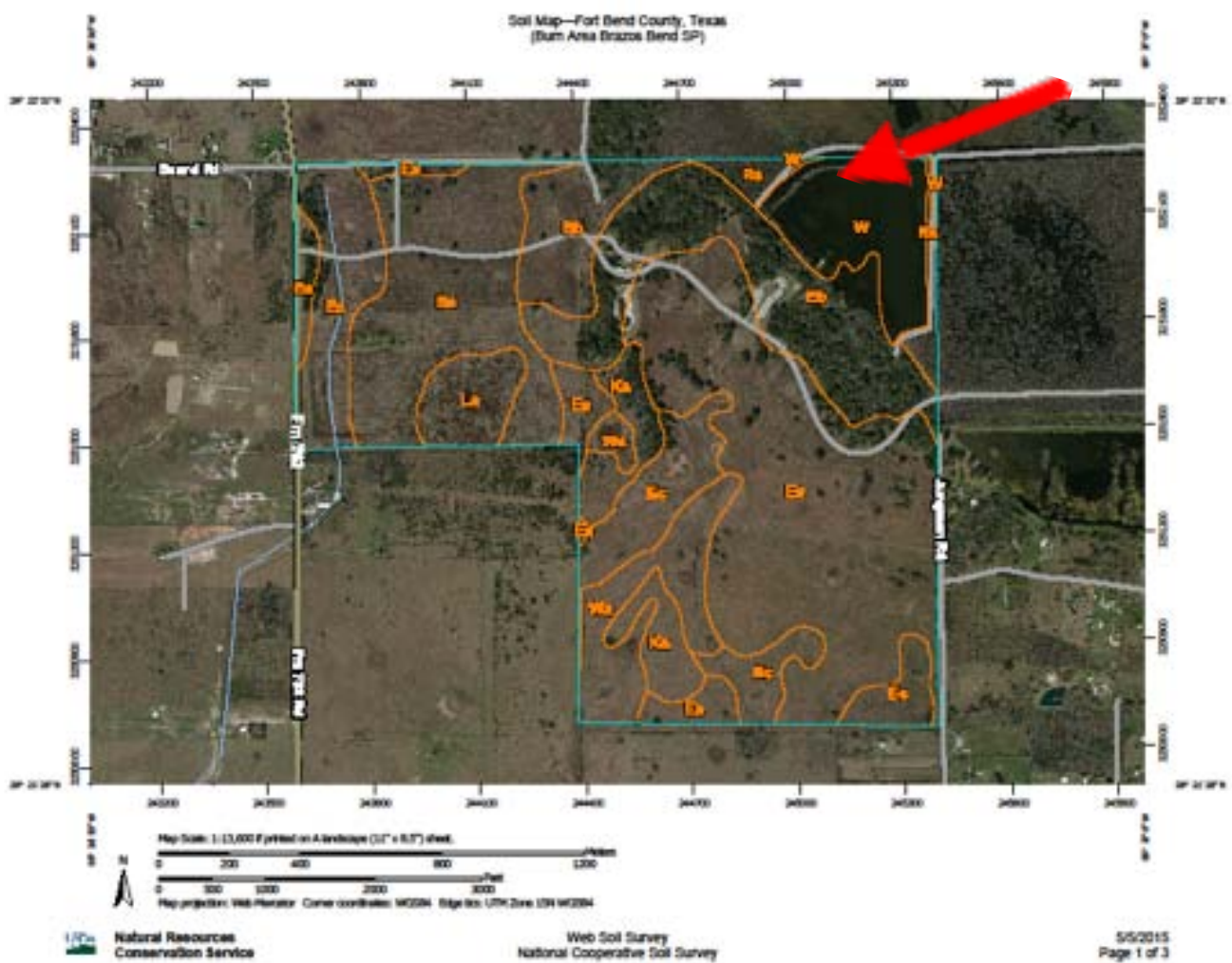
In the past, coastal plain pothole wetlands were assumed to be geographically isolated with no significant nexus to the Gulf of Mexico. They were closed depressions that contributed little or no water to downstream waters. However, two recent studies have demonstrated that runoff from these depressions, although episodic, is a common event (Forbes et al., 2010, Wilcox et al. 2011.) The authors of the two articles believed hydrologic connectivity to be clearly present. In the

Wilcox study, intermittent runoff from coastal plain wetlands occurred regularly over 45 months, accounting for more than 71% of precipitation with an annual discharge ranging from 0 to 27%.

Although runoff from coastal plain wetlands is episodic, it can occur continuously for significant periods.

In the Forbes et al. study the longest continuous of period of runoff was three months.

Soil Map, Prairie Trail and Prairie Trail pothole area (red arrow)



Upper Texas Gulf Coastal Pothole Wetlands at Brazos Bend

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An important implication from both studies is that most if not all surface runoff from the natural prairie grasslands or from land converted to agricultural activities may pass through these coastal prairie depression wetlands. Therefore, if these small coastal prairie pothole wetlands are not isolated, but do have a significant nexus to the Gulf of Mexico, then they are a critical part of the aquatic integrity of the regional bayous and bays of Texas that constitute waters of the United States.



... a critical part of the aquatic integrity of the regional bayous and bays of Texas

References:

Code of Federal Regulations, Title 33- Navigation and Navigable Waters, 328.3 Definitions.

Forbes MG, Yelderman J, Doyle R, Clapp A (2009) Hydrology of coastal prairie freshwater wetlands. *Wetland Science and Practice* 26:12-17

Jacob, JS (2011) *Upper Texas Gulf Coast Pothole Wetlands: New Research shows Significant and Profound Hydrologic Connections to Galveston Bay and other Area Waters*. Texas Coastal Watershed Program, Texas Sea Grant and Texas AgriLife Extension, TAMU.

Natural Resources Conservation Service, Web Soil Survey, National Cooperative Soil Survey, Map Unit Descriptions: Edna, 0-1% slopes, Edna fine sandy loam, 1-3% slopes, Edna-Cieno frequently ponded complex, 0-1% slopes, Bernard clay loam, 0-1% slopes, Bernard-Edna complex, 0-1% slopes. Soil Survey Area: Fort Bend County, Survey Area Data: Version 17, June 11, 2020

Wilcox BP, Dean DD, Jacob JS, Sipocz A (2011) Evidence of Surface Connectivity for Texas Gulf Coast Depressional Wetlands. *Wetlands* 31:451-458. DOI 10.1007/s13157-011-0163-x

Texas Almanac.com, Geology of Texas. Wisconsin Glacial Stage, Britannica Online Encyclopedia. www.britannica.com

ANTcestry

An original song and lyrics by Jaci Elliott, best hummed as melody in Bo Diddley blues style

In cargo ships from Argentina
Northward to South Carolina
More than a hundred years ago now
Bitten up and seared our toes, ow!
Red imported
They've cavorted
Power shorted
Be deported!



This *Solenopsis that's invicta*
Their smaller size just might have tricked 'ya

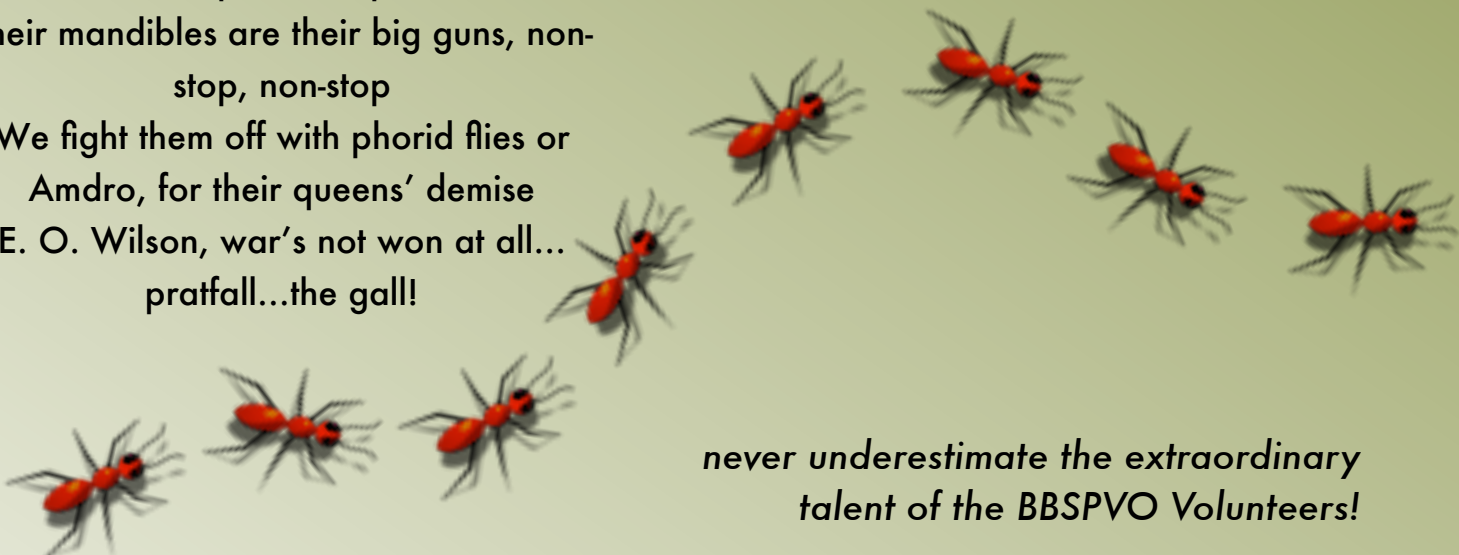
Threat'ning livestock and ground nesters
Causing scratching 'til it festers
Their bite can make you nearly go daft
When it floods they just build a raft
Fiery stinging
Family bringing
Pant leg clinging
Insect slinging

But pustules and restrictive breathing
Disturb their mound and they are seething
Red imported
They've cavorted
Power shorted
Be deported!

Ant-cestry...invasive antcestry; ant-cestry...
don't claim this ant-cestry

Ant-cestry...non-native ant-cestry; invasive
antcestry; antcestry...
don't claim this ant-cestry

The ants go marching tons by tons, non-
stop, non-stop
Their mandibles are their big guns, non-
stop, non-stop
We fight them off with phorid flies or
Amdro, for their queens' demise
E. O. Wilson, war's not won at all...
pratfall...the gall!



*never underestimate the extraordinary
talent of the BBSPVO Volunteers!*

Volunteer Labor Has New Meaning

Pete Hart

In the early years before I got involved in the woodyard I worked in the Nature Center. When my shift was done inside I would go get a John Deere Gator and patrol the trails. I would talk to visitors and point out American Alligators. There were always turtles, snakes and other animals to point out.

This was a hot and humid day. I was out patrolling and I could hear a thunder storm off in the distance, There were a lot of people walking the trails. As the storm got closer I pulled my gator up to the covered bench at Elm Lake and Pilot Slough trail. I joined another visitor who seemed to be seeking cover from the upcoming storm. We sat there talking for a few minutes when a clap of thunder and lighting struck close by. Then the sky opened up pouring rain like it often does in this part of Texas.

As I sat there a lady approached me. She was obviously pregnant. She was carrying a small child. Rain was pouring running down her face and the baby was soaked. She said "can you help me, I am having my baby!"

Now I have to mention this was a roofless gator that I had parked there. I immediately thought of the rule that we are not permitted to allow any passengers on the gator, not even our family. But I felt this was an emergency so I said 'get in the gator.' Still raining like crazy.

Just as we got in the gator up came a man and two young girls. He said he was her husband and needed to go with his wife. The kids needed to go too. So I'm thinking we needed to hurry because this mother was definitely in labor. In my 25 years as a police officer I never delivered a baby, and I sure was not doing it now!

So the mother and her small child got in the front, the father and two small girls climbed in the back of the gator and we took off for the Elm Lake parking lot. And its still raining like crazy!!!! I wear glasses and I could hardly see. Everybody was holding on. I am going fast, Mom is groaning and Dad asks me to slow down. I did a little, but not much. Seemed like for ever to get to their car. We got there, and they all jumped out and got in their car. Dad thanked me and asked if there was anything I needed?

I said if its a boy, my name is Pete.

Now I am so wet the water was running out of my shoes. I pulled into the Elm Lake pavilion and just sat there, going over what had just happened. At this very time David Heinicke called me on the radio and asked if I was staying dry. I responded now I am! Just another fun day as a Brazos Bend State Park Volunteer!

... my name is Pete.





In Tribute to Beloved BBSPVO Volunteers

The BBSPVO was very saddened to learn of the recent passing of Volunteer **Chris Faidley** a few days after the January monthly meetings. Chris will always be remembered by those who knew him best by his big heart and even bigger grin and infectious laugh. Chris was a hands-on contributor to the Park, always available no matter the weather, rain or shine, and always eager to help with a big inviting smile. BBSPVO Volunteer Angela Hundhausen reflects on the special comraderie he shared with the Woodyard crew. *"Chris was a beloved member of the BBSPVO and will be dearly missed. Chris was kind, funny, and always willing to help and teach others. He will be especially missed by the wood yard crew. RIP dear friend."*



BBSPVO Volunteer Jaci Elliott remembers sharing a special friendship with long term member and very active Volunteer **Cindy Peterson**. *"Cindy liked doing the firewood restocking and money collection and, before we were no longer able to do so, the water route. A few times she let me know that she had signed up for a certain day and asked if I would join her on the schedule. Both of us preferred outside volunteer duties over the indoor ones. We would ride in the gator and discuss our similar interests, which ran the gamut from woodland creatures to the political variety. She never flinched from the manual part of manual labor and we both considered ourselves to be independent thinkers."* Jaci and Cindy also shared a common bond through the experiences of families facing the challenges of breast cancer. This awareness brought them closer together as they reflected on their own struggles with mutual understanding and encouragement.

*Chris Faidley and Cindy Peterson
Forever with us on the trail*

BBSPVO Officers

2020 - 2021 Officers

Wayne Wiegand, President
Cheryl Pitts, Vice President
Lisa Sanders, Secretary
Nancy Toberman, Treasurer
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Judy Strauss, Member at Large

Newsletter Editor
Lisa Sanders
Webmaster
Anne Shelton

Thank You, Volunteers of the BBSPVO

Thank you for sharing these outstanding photos and your experiences in the Park.

Technical Support/Webmaster

- Anne Shelton

BBSP Park Staff:

- Montse Canedo, Volunteer Coordinator
- Jason Castle, Assistant Superintendent

Want to contribute to the Newsletter?

Do you have a passion for birding? Hiking? Texas history? Photography? Maybe you enjoy Sky Gazing, or know a little about the history, geology, ecosystems and biology of the area. If so, please consider sharing your experiences in the *Brazos Bend Bugle!* If you would like to be a contributor to the *Bugle* please contact Lisa Sanders with photos, short story or articles. Everyone has a story to tell!

