BRAZOS BEND

BELLOW

January 2025

From our Superintendent, *Jason Castle*

Here are a few updates from other Team Leads in the park.

Richard Ford – Office Manager at Park HQ

Brazos Bend welcomes new team members

Brazos Bend State Park is excited to announce the arrival of 2 new Customer Service Representatives! Karla Torres and Malinna Harris joined a dynamic team toward the end of December, both external applicants bring a wide variety of talents to the table, and we are proud to welcome them to the agency. If you find yourself in the Greater Houston Area, stop by Brazos Bend and say hello to our new friends!

Rick Taylor – Lead Ranger for Maintenance crew

Each year BBSP participants in the Texas Drawn Hunt Program. Following in line with TPWD's mission statement, this program provides a wide variety of hunting opportunities across the State at an affordable cost for everyone. These hunts are also a vital

Jason Castle *continued*

tool for managing the deer population in the park by hindering disease and overgrazing. For the 2024 season, BBPS hosted three hunting events; a youth hunt (doe only) in October, a buck and doe hunt in November, and a doe and spike only hunt in December. During the youth hunt, a grandfather and grandson were able to harvest the grandson's first deer together; a memory and experience that will last them a lifetime. Altogether, 29 deer were harvested along with 12+ feral hogs. The hunters were also encouraged to dispatch as many hogs as possible. This invasive species is a destructive presence in the park and across the State. The Park has implemented the use of several large corral traps that can trap dozens of hogs at a time with a push of a button on a mobile phone. These animals multiply at an astounding rate, so perseverance is key if we hope to keep this population in check. We appreciate all the help and support from the staff and volunteers with these endeavors.

What do you call a dishonest alligator?

A crook-odile

What do you call an alligator when you put him in a blender: Gator-ade

What is the most popular Basketball move? The Alli-oop

What type of flooring do alligators have in their homes? Rep-tiles

From our Lead Interpreter:

Jonathan Argo

During the BBSPVO's general meeting, Jonathan reported on the outcome of the 2025 First Day Hike at Brazos Bend SP. A count of 614 individuals attended this event encouraged by good weather conditions. While open during the usual weekday hours of 11am to 3pm, the Nature Center welcomed 459 visitors who bought over $400 worth of product from the gift shop. It was a great day for all involved.

In December 2024, 18 programs were presented by staff and volunteers for a total of 532 attendees. Volunteers and staff members interpreted for an incredible 568 visitors while roving on our trails, which is 238% more trail contacts made than in December of 2023.

1,807 Jr. Naturalist forms were completed in 2024 (mostly at the fawn level) despite the park being closed for nearly two months of the year due to the devastation of Hurricane Beryl. Assuming the park suffers no unforeseen closures for any substantial length of time, we expect to issue about 2,000 Jr. Naturalist patches in 2025. This is an excellent program that helps young visitors explore nature on their own at Brazos Bend, and we can point to it as an example of what other State Parks might be able to do with their own custom self-guided programming.

WELCOME TO THE
VOLUNTEER CLASS OF JANUARY 2025

Roster: Amanda Gabehart, Stacey Wheeland, Jim Wheeland, Kimberly Calhoun, Ruth Smith, William (Bill) Hannah, Susie Doe, Peter Doe, Paul Bruner, Herb Myers, Beth Kuhn, Dylan Williams, Dave Wadsworth, David Goldberg, and Rosemary Coe

From our Training Coordinator:

David Heinicke

We finished up the classroom training for 15 new VITs on Saturday. Several of them have already started getting their VIT hours completed. In addition to these new VITs, we still have a few VITs from the last class that are working through their training hours as well. Once we get past this cold snap, I hope you will help these new volunteers get the training hours they need to become successful productive volunteers. We need volunteers to sign up for Nature Center shifts, Gift Shop shifts, leading Creekfield Hikes and stocking firewood on weekends. If you can help, please do so.

I also wanted to acknowledge everyone that helped make this class a big success.

- Cristey Gibson for tracking, communicating and doing orientations for all of the new VITs

- Lonnie Hoffman for coordinating, printing and delivering the training binders and name tags

- Lisa Arnold for providing and setting out the refreshments for both classes. (I'm eating the leftover chocolate-covered almonds now!)

- Greg Lattier for doing Creekfield Hike leader training

- Don Feeney for coordinating, recruiting and training for the Mentor program

- Doug Stewart for maintaining and training on the website, getting new people set up on the volunteer calendar and VMS system

- Ed & Becky Baldwin for leading the UTV tours for all of the VITs this time. Pual Mugridge is on "injured reserve".

- Park Staff - Jason Castle, Danny Thatch, Jessica Bullard and Jonathon Argo for their leadership and training presentations

- Everyone that agreed to be a mentor

- All the volunteers that covered shifts during training so the rest of us concentrate on the class

Obviously, it really is a team effort. We couldn't do it without you.

First Day Hike was attended by well over 600 hikers.   Staff and volunteers turned this New Years event into a fantastic day.

FIRST DAY PROGRAMS Continued

The Visitor Center had 496 visitors and over $400 in the Gift Shop between 11 am and 3 pm.

"Come on out, my sweeties, I have a surprise waiting for you!

Camouflage to The Extreme

HATS OFF TO THE NEWSLETTER'S VOLUNTEER OF THE MONTH: CHUCK DUPLANT

Chuck Duplant has been a volunteer since 1987! (That is for 37 years!!!) For a while, he was in charge of the Firewood. I watched him help David free an owl that got tangled up with fishing line near Creekfield Lake. You may not see him often, but when he is needed, he will appear! The following paragraph Chuck writes about his activities at the park.

With winter just arriving my favorite thing to do at the Park is hang out at Pilant Lake and watch for Eagles and Harriers. Talking to visitors and showing them what is out in the Lakes. Walking the Prairie to see and photograph what is blooming and what insects are out. I do a few programs such as Insects, and assist David H with Pond Life and Hummingbird banding. There are always things to see and learn in each season at the Park. Springtime has flowers and insects. Summertime has prairie flowers, grasses and insects. Fall has the butterfly count, and seed collecting on the prairie.

Chuck's story that appeared on Facebook.

Sunday morning 12/1/24, at Pilant Lake, a Red-shouldered Hawk flew towards me and landed in a tree nearby. It then flew off and was hunting in the grass in front of me. It dropped into the grass and came up with a Leopard Frog. It flew into a tree down the trail and began eating it.

While heading back to my truck I a found a Wilson's Warbler hunting in the rose bramble near 40 Acre parking lot. Also found a rabbit eating in the security of the rose bramble.

Rick's Meanderings

Howdy Folks,

A few things from BSP from December 22, 1924.

The weather in Harris County and surrounding counties has been....very different last SaturdayI hope everyone this reaches has come through with few problems. Actually I hope everyone else-has also come through ok...but I know that many haven't.

12/22/2024 The morning was a bit cool at Brazos Bend State park, but a few alligators started moving in Elm Lake around 9am. When I looked at this alligator cruising towards one of the is-lands, I noticed that a Pied-billed Grebe was following it. I've seen Pied-billed Grebes follow alliga-tors before, and I assume that the Grebes are looking for prey that might use the slow-moving ga-tor for cover, or prey that has been flushed out by the passage of the gator. This time, the alligator submerged as the Grebe approached. The Grebe waited for the alligator to reappear. While I wait-ed to see what the Grebe might do; I described the situation to some park visitors.

While I was distracted, the alligator surfaced, and started back the way it had come. I shot a few bursts of photos as I talked with the visitors. The Grebe briefly followed the gator, but lost inter-est. Another Grebe approached from the other direction, but both Grebes lost interest. The alliga-tor ignored them both. I did capture some very short video, shown here: http://www.rickubis.com/rick/grebe_gator122224.mp4

About 30 minutes later, an alligator appeared near one of the narrow "basking spots" on one of the islands. It was about 300 yards West of the "Grebes with Gator".

  It's not easy to tell when alligators will start to come out to bask. Water temperature compared to the air temperature, along with the amount of radiant sunlight, with the size and mass of the gator --are all factors that help determine if a certain alligator will: a) surface and/or b) climb out of the water. These is the case if it is cold, but also if it is really warm. And, as usual, the alligators never tell me what they're up to.

Finally, I saw this Anhinga in 40Acre Lake in the afternoon. The last 3 dry summers (although 2024's wasn't quite as bad) and Hurricane Beryl really knocked down a lot of the trees and bushes in the areas around the lakes. I've noticed more Anhingas standing on low growths to get out of the

Rick's Meanderings, continued,

water for their thermoregulatoryactivities. Usually they prefer branches much higher. This one was also
and it took off to challenge another Anhinga that it had been calling to before I was ready with the came

I tried to get some detail of the fine grouping of backward-pointing bristles, or barbs at the top of the be
They are supposed to prevent prey from sliding easily off the beak. These two images are just cropped fr
the 4th image above. Sometimes these barbs seem to work a little too well. Examples of Anhingas feedin
on my Anhinga page: http://www.rickubis.com/rick/brazbird3a.html

Or, go straight to this video demonstrating the function of an Anhinga's beak, from 2022: http://
www.rickubis.com/rick/anhinga_beak_070322.mp4 and this 2011 video of an Anhinga hunting: http://
www.rickubis.com/rick/anhinga_030611_2.mp4

By the way, last Sunday (12/29/24 yesterday) turned out to be very nice. I never got past the Observation
er...for about 5 hours. But that's how it is

Mom said th
would be da
like this…

"Mom, we want breakfast
NOW, not tomorrow!!!!"

"Uhhh,
Mom, I
could use a
little help,
like right
NOW"

Dragonflies

By Carrie Sample

Meganeura is a genus of extinct insects from the Late Carboniferous (approximately 300 million years ago). This dates to before the dinosaurs. In the 1700's these fossils were first found. These fossils had a wingspan of 2 feet versus our current dragonflies with up to 4 inches which made them the size of crows. This is also the time when wings first appeared on creatures. Their size is the only difference between the current dragonflies and their ancestors.

Japan and China, they were seen as good luck and harmony. In Native American culture, they represent a change or purity. In Europe, they thought the opposite, dragonflies were a symbol of bad luck. In fact, in a Romanian tale, St. George's Horse became a dragonfly after being cursed.

Today, Dragonflies are appreciated. (Unless you like mosquitoes, that is…) A single adult dragonfly can eat between 30-100 mosquitoes a day. Even in their larval stage, they eat about 40 mosquito larvae daily.

Speaking of their Larval stage, dragonflies begin their lives under water. In fact, they live longer underwater than in the air. Their lifespan during this larval stage can last 2-5 years. Once in the air, they only live between 2 days and 2 months. (These numbers vary according to which article you read.)

Female dragonflies lay the eggs on plants that extend out of the water. After they hatch they are ferocious eaters. They may need to molt 6 and 15times before they are ready to climb on a leave or branch sticking out of the water to become an adult. This process can take several hours or days as they expand to their full body capacity. During this period, the dragonflies are the most vulnerable. Birds and other predators consume a significant number of young dragonflies after their emergence.

Fast Facts:

They can move each of their four wings independently.

They can move straight up or down, fly backward, stop and hover and make hairpin turns at full speed or slow motion.

They have 5 eyes, not just the 2 large ones that you see.

Like owls, they cannot see directly behind them.

They can see a wider spectrum of colors than humans.

They can stay warm by employing a rapid whirring movement of their wings, and they can maximize their surface bodies to maximize the sun exposure.

They cool off by using their wings to deflect sunlight.

They have predators both in the air (kestrels, flycatchers, swifts) and in the water (ducks, wading birds, frogs, fish, newts).

Some dragonflies migrate.

They are used in traditional medicine in Japan and China. They are eaten in Indonesia.
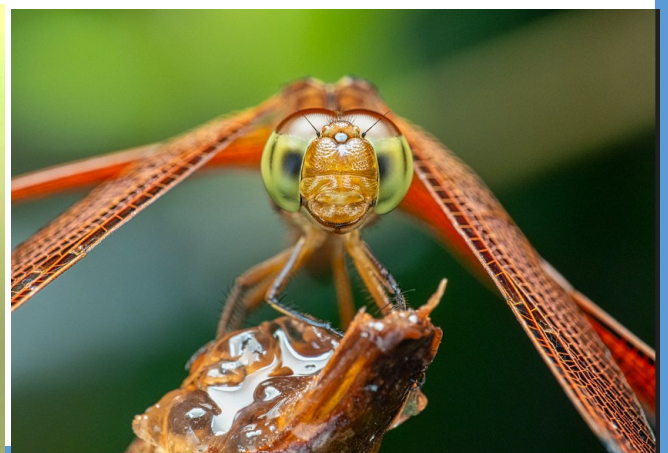
Mike's Musings

By Michael Fisher

HOW OLD IS THAT TREE?

Just about everyone who works the front desk in the nature center gets that question sooner or later. Lucky for us, we have a sign beside the nature center's front door that tells us their ages as of the year 2008, and the sign says that, as of the year 2025, the oldest tree is around 240 years old, give or take. Besides that, many of us have heard the rule of thumb that says if you measure a live oak tree's circumference at four feet above the ground, the number of inches equals the tree's age in years. Measuring the circumference gives about 240-250 inches, so we say it's roughly 240 years old. But how do we know that value is correct?

While walking around my neighborhood not long ago I observed several live oaks that did not seem to conform to that rule. I know that because I've lived in the neighborhood practically since it was developed, so I know the trees were planted no earlier than 40-45 years ago. Measuring their diameters with the Mark 1 eyeball, I'd guess they're in the range of 1.5 to 2 feet, giving circumferences of about 55 to 75 inches. This, of course, would imply those trees are 55 to 75 years old, a little bit older than the neighborhood.

This led me to consult Professor Google to see if I could find a way to estimate a tree's age that I could accept, at least provisionally. It turns out that it's complicated. For one thing, it depends on the tree's growth rate, and this varies from year to year.

You might think that, well, yes, the growth rate varies, but it probably averages out to some accepted value over a long enough period of time. True enough, but growth rates strongly depend on climatological factors such as annual rainfall and temperature,

and willow trees grow so erratically that we can't use their rings at all.

Fortunately, oak trees aren't known for missing out on producing a ring per year, so they're pretty reli-able. Therefore, if you know the tree's average number of rings per inch, you can make a decent guess of its age by measuring its radius (i.e., half its diameter) in inches and multiplying by the number of rings per inch.

The International Society of Arboriculture uses that general technique in the following process. The growth factor given in step 3 accounts for the average number of rings per inch.

1.	First, determine the tree's diameter. You do this by first measuring the tree's circumference in inches at breast height, or about 4.5 feet above the ground. This measure is called CBH for short. Our rule of thumb that equates the cir-cumference in inches to years of age also starts with this.

2.	Next, compute the tree's diameter at breast height (would you believe the arborists call that DBH?) by dividing CBH by pi, or 3.14.

3.	Finally, multiply DBH by a growth factor that's specific to the type of tree. The growth factors in the tables I've seen range from 2 for a tree like the cottonwood to 7.5 for the white fir.

A small growth factor implies fast growth, and a large one implies slow growth. So, how fast do live oaks grow? The Arbor Day Foundation says live oaks grow fast when they're young, with as much as one-inch gains in trunk diameter each year, and then the growth rate slows down as they age. That would at least partially account for the large size of the fairly young trees I see in my neighborhood.

Unfortunately, I haven't seen a table that gives a growth factor for live oaks or for any of the other trees in the vicinity of the nature center, but the white oak has a growth factor of 5, the pin oak has a factor of 3, and the red oak has a value of 4. The live oak is closely related to the red oak (all oak trees belong to the genus Quercus), so let's use a value of 4.

Now let's take the biggest tree in front of the nature center and see what this procedure gives us. Again, its circumference is about 240 inches. Dividing that by 3.14 gives 76 inches. Multiplying 76 by 4, we get 300 years (close enough). On the other hand, if we use a growth factor of 3, we get an age pret-ty close to 240 years, and if we use a growth factor of 5, we get an age of about 380 years.

So, is the big tree 380, 300, or 240 years old? Before deciding, here's another method I found that al-legedly applies to live oaks. It takes into account the idea that a live oak's growth rate changes over the tree's lifetime.

1.	Again, determine the tree's diameter as before: 76 inches.

2.	The first 10 inches of diameter equates to 76 years.

3.	Each inch after that adds 6.5 years to the age until age 154. In our case, this corresponds to 12 more inches, i.e., 78 = (154 - 76) = (12 X 6.5).

4.	After this, each additional inch in diameter corresponds to six years of growth. Since we've now accounted for 22 inches, we need to account for 54 more. Multiplying 54 by 6, we get 324 years.

5.	Summing everything up, we get 154 + 324 = 378 years. Let's just say 380.

So, is the big tree 380, 300, or 240 years old? The only way to know for sure is to cut it down and count its rings, but we love our trees and we really don't want to do that. All you need to know is that if someone walks into the nature center and asks you how old is that tree, just say, "The oldest one is about 250 to 300 years old, give or take a hundred or so." You will totally nail it.

Mike's Musings continued

and those can be depressed or elevated relative to long term averages, even for surprisingly long periods of time.

Growth rates also depend on factors such as the type of tree, the soil, and the amount of sun received by the young tree. If it grows in the shade of a bigger tree, it won't grow as fast as if it grows in direct sun, and if it grows in less than optimal soil for its type, well... You get the idea.

For another thing, there are different calculators available online, but most of them boil down to a fairly simple idea. We know that you can determine a tree's age pretty accurately by counting its rings – one ring per year of the tree's growth. Except that there's a kicker here, too: not all tree species reliably produce annual rings. For instance, alder and pine trees occasionally miss a year, and sometimes they "double up", i.e., they may produce two rings in the same growth season. And birch and willow trees grow so erratically that we can't use their rings at all.

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BBSP Volunteer Organization

Elected Officers

President: Carrie Sample

Vice President: David Heinicke

Secretary: Susie Taylor

Treasurer: Linda Caldwell

Position 1: Randy Kepner

Position 2: Brenda Tuntland

Last President Mike Emmons

Appointed Officers

Comptroller: Bob Kowalewski

Comptroller: Nancy Toberman

Webmaster: Doug Stewart

Gift Shop: Linda Heinicke

Woodyard: Alan Gradet

Notes from the Editor

Thanks to all who have contributed to our newsletter. All members are invited to send their pictures or stories to:

csample0@comcast.net