Brazos Bend became a state park in 1984. Five years later, in 1989, the Houston Museum of Natural Science developed a win-win relationship with the state of Texas when it established and built the George Observatory. Twenty four years later that relationship is flourishing.

Park visitors and observatory visitors share more than the same Nature Center parking lot and the Creekfield Lake trail. They experience the wonders of the park in both day and night. The two associations of volunteers are also as different as day and night. Visitors are greeted by ‘brown shirts’ at the Nature Center and ‘blue plus shirts’ at the observatory. While the park volunteers have a tightly run organization, the observatory volunteers are usually members of the various astronomy clubs around the Houston area and beyond who are trained by the observatory staff to operate the telescopes in the three domes and to inform the visitors of the wonders of the night sky.

This relationship makes Brazos Bend State Park a unique place to visit.

ANNOUNCEMENT

BRAZOS BEND VOLUNTEER ORGANIZATION PICNIC
SATURDAY, OCTOBER 19, 5:30 PM
WATCH FOR MORE DETAILS
JULY MEETING NOTES

Vice President Glen Kilgore called the general meeting to order on July 13, 2013. There were 15 volunteers, 4 staff and 3 visitors present. The minutes of the June meeting were approved as posted.

We welcomed Superintendent Steve Killian back to BBSP after a five-month assignment at Enchanted Rock State Park. Steve Sharon Hanzik and David Heinicke brought their staff reports, which are published elsewhere in this edition.

Committee Reports:
Treasurer Bob Kowalewski brought the Treasurer’s report for June and the requests for purchase. The following requests were approved.

1) Plants for the Nature Center garden (butterfly and hummingbird attractors)
2) Monarch Watch Tagging Kit, tags, and data sheets for the garden
3) Nature Center garden signage:
   “North American Butterfly Association Certified Butterfly Garden” and
   “TPWD Certified Texas Wildscape”
4) Amended request for additional computer cost
5) Advertising for Camp Host: Workcamper Basic - website where hosts go looking for options. Purpose is to attract park hosts.
6) Annual Membership in Ft. Bend Chamber of Commerce for BBSP.

Gift Shop: Beth Debenport reported that we had a good June, and we appreciate all the help.

Outreach: Judy Strauss reported that we have an outreach scheduled at the Missouri City Library July 27 and nothing else is scheduled until October.

Blood Drive: Chuck Duplant reported on a very successful blood drive. It is normally hard to get donors in July. We had a very good turnout of visitors, staff, volunteers and hosts.

Maintenance: Woody Scott reported that we are well-supplied in wood and have a fully stocked wood yard, with lots to split. The tractor has been invaluable to move wood around.

New business:
The Nominating Committee will be appointed and will need to recruit nominees for officers for the September election. This year we will elect 2 members-at-large, as well as the usual slate of President, Vice President, Secretary and Treasurer. The current President, Mary Lockwood, and the current Vice-President, Glen Kilgore are eligible to run again. Secretary Belinda Dimarcello and Treasurer Bob Kowalewski are not eligible to run again, due to our two-year consecutive term limit.

Bruce Williamson and Bob Kowalewski volunteered to serve on the Nominating Committee. Other interested volunteers should contact Mary Lockwood. The members of the Nominating Committee will be announced to the membership via email prior to the August meeting. Nominations will be announced at the August meeting and may be made from the floor. The election will be at the September meeting. A nominee must give permission before a nomination can be made.

Comptroller Nancy Lynn Jones reported that we have received memorials for Candice Kanak with very nice letters from her family and friends.

Announcements: Maureen Goode is engaged to be married.
STAFF REPORTS

PARK SUPERINTENDENT STEVE KILLIAN

It’s good to be back. I missed our efficient volunteer organization. Enchanted Rock is developing a friends’ group that will be contacting us for information. All parks need volunteers for funding and staff.

Jacob Dement told me to tell you that June was the best June ever and beat previous June’s by 40%. Staff, volunteers and hosts working together make it happen. I am working on future projects and glad to be back.

INTERPRETIVE RANGER AND VOLUNTEER COORDINATOR SHARON HANZIK

Thanks to Chuck Duplant for organizing the successful blood drive. We have done well getting applicants in for new volunteer training. At this point we have ten confirmed, and about 6 left to interview. The current class is closed. Interested visitors should be directed to the web site to apply for February 2014 training.

Thanks for help with EcoExplorers. It continues through Aug 1, and you may sign up on the Special Events calendar.

Staff email addresses are changing, and an email has been sent with the new addresses. At this point, both old and new addresses are working. Thanks for hanging in for summer staffing. Your help is still needed.

INTERPRETIVE RANGER AND PARK PEACE OFFICE DAVID HEINICKE:

Some BBEEC representatives met with Justin Rhodes, Regional Director, a couple of week ago and pitched the preliminary plan of the new building. Justin supports us 100%. Parks and Wildlife asked each Region to bring forth projects in parks, and the Executive Office will pick priority projects from the Divisions, to forward to the Parks and Wildlife Foundation to get help in fund-raising.

We are looking at having architectural drawings completed for promoting funding of the building. We still do not have the official go-ahead for funding yet, but we can approach some possibilities.

There are many issues to be addressed: How will we use the building? We will have to have the building staffed more than now. Will we need a full time additional staff person? How can we make use of the building? The building should generate more volunteers and more excitement. We may need to be open 9:00 to 5:00 seven days as week. We may need to recruit specifically for volunteers for staffing the Nature Center. Volunteers can also do other things if interested. We might have a full-time education director during the week to schedule school programs. We might need a full-time person for the Gift Shop, with merchandising experience.

Question: What will happen to the current Nature Center building? Ideas include a rentable lodge/bunk house for scouts and families; a lab facility for grad students. The building will remain. We are working on getting a new roof, having the work done during the week so we won’t have to close on weekends.

The Independence Day Parade had 76 riders, plus volunteer helpers.
MAINTENANCE REPORT

The maintenance crew reported 226 hours for June in the following activities:

**Wood Yard:**
- Split and bundled wood

**Mowing and Landscaping:**
- Mowed around several live oak trees

**Trail Trimming and Trail Maintenance:**
- Cleared blow-down tree on Red Buckeye Trail
- Trimmed Yellowstone Trail
- Hauled trail material to Bluestem/White Oak Trails

**Equipment Maintenance:**
- Washed gators and tractor
- Worked on tractor and wood splitter

**Pest Control:**
- Treated for fire ants
- Checked and set hog traps
- Treated Chinese tallow trees
- Pulled invasive plants from pocket prairie
- Sprayed invasive plants

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**BIRTHDAYS AND ANNIVERSARIES**

**AUGUST BIRTHDAYS**
- Sylvia Carrillo (Staff)
- Amanda Elsworth (Staff)
- Jim Gilliam (Staff)
- Eddye Grizzaffi
- Beverly Lannou
- Lara Malone
- Frank Seay
- Joe Southern

**AUGUST ANNIVERSARIES**
- Ray and Dana Anderson
- Jim and Lorena Calvert
- Ron and Margaret Morrison
- Laszlo and Lexi Perlaky
- Frank and Stacey Seay
- Veronika Vaneckova (VIT) and Martin Kroupa
- Bruce and Anna Dell Williamson

**SEPTEMBER BIRTHDAYS**
- Gary Bialas (Staff)
- Jim Calvert
- Ron Dearman
- Allen Elster (Staff)
- Barry Eversole (Staff)
- Frank Gregg (Emeritus)
- Holly Haynes
- Linda Oden Heinicke
- Tina Ibarra (Staff)
- Mike Manley
- Sammie Miller
- Paige Norwood

**SEPTEMBER ANNIVERSARIES**
- Dave (Emeritus) and Gay Armstrong (1967)
- Jaci Elliott
- Kent and Debbie Fewell
- Eddye and Sam Grizzaffi
- Jim and Patricia Hiett
- Don and Marilyn Vossler (1966)
CONGRATULATIONS

Congratulations and best wishes to Maureen Goode on her engagement to Mel Klegerman. You can expect to see both Maureen and Mel around the park.

ECO-EXPLORERS 2013

Our Volunteer Organization has just finished its 5th successful year of Eco-Explorers (our summer program for children). We had 37 children enrolled in the Thursday classes of Ecos and 16 enrolled in the younger Eco-Explorer Tadpoles on Tuesdays. Several of these families have come for several years. Our presenters this year were Sharon Hanzik, David Heinicke, Jaci Elliott, Barbara Willy, Carrie Sample, the Fort Bend Master Gardeners, and the Houston Audubon Society.

Many thanks to Barb Tucker who was the Tadpole’s lead volunteer and Mary Lockwood who was the Eco-Explorer’s lead volunteer. Many thanks to the following volunteers who assisted: Suzie Gann, Carl Franke, Jerry Carpenter, Christa and Cole Ledman, Earline Okruhlik, Joe Southern, Jane Minard, Debbie Fewell, and Nelda Gay.

If you would like to present to one of our classes next year, please let me know! We try to rotate topics since so many of the children come every year.

A VERY SUCCESSFUL SUMMER BLOOD DRIVE

by Chuck Duplant

Saturday, July 13, thirty-one donors gave blood yielding 20 whole blood and 4 double red cell units at our Summer Blood Drive, making it a huge success. Thanks to everyone who helped and donated.

Out of the thirty-one donors, 18 were visitors, 6 were staff and 7 were volunteers/host. What a great show of support for the blood drive! Thanks again to all of you.
The link below will take you to information about TPWD conservation license plates. If you are interested in a plate, please note that the Bluebonnet plate benefits state parks, and that the Heron and Ducks Unlimited plates benefit waterfowl and wetland restoration (this could likely include funding for projects at BBSP). Ducks Unlimited funded the recent installation of the water control structure behind the composting toilets on Elm Lake. Thanks to Michael Sanderson for bringing this to my attention.

http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_br_k0700_0680.pdf

THANK YOU

to Chuck Duplant for planning and coordinating the Blood Drive, June 13

to all the donors for the blood drive.

to Anna Dell Williamson, Lindsey Lacour, and Jaci Elliott for the meeting night supper.

to Rick Dashnau, Nelda Gay, Paige Norwood, Mark Sanderson, Bob Schwartz, and Veronika Vanheckova for articles and photos for the newsletter.

to Carrie Sample and all of her helpers for another successful Eco-Explorers summer program.

REMININDER FROM SHARON

It’s important to report all of your volunteer hours. Last year’s fiscal year total of 24,000 volunteer hours equaled 12 full-time employees! We need every hour reported by September 1.

Thank you all very much!

NATURE CENTER GETS NEW ROOF

The Nature Center roof has been replaced! A roofing crew started laying a new roof on Wednesday, July 31, and finished Saturday, August 3. Construction did not interfere with visitors coming to the Nature Center. Here are a few pictures of the work and completion.
Below are the totals of the various activities and attendance recorded for the Nature Center, hikes, and programs for June 1-30, 2013. June 1 was National Trails Day, with extra programs and hikes offered. Weekday attendance was very good. Volunteers and staff presented 56 programs and hikes.

<table>
<thead>
<tr>
<th>PROGRAMS</th>
<th>TOTALS APRIL</th>
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<tbody>
<tr>
<td><strong>NATURE CENTER ATTENDANCE</strong></td>
<td></td>
</tr>
<tr>
<td>June 2013 - 6,012</td>
<td></td>
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<tr>
<td>June 2012 - 5,881</td>
<td></td>
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<tr>
<td>June 2011 - 4,939</td>
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<tr>
<td>June 2010 - 6,068</td>
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<tr>
<td>June 2009 - 5,109</td>
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<td>June 2008 - 4,025</td>
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<td>June 2006 - N/A</td>
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<tr>
<td>June 2005 - N/A</td>
<td></td>
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<tr>
<td>Saturdays (5) – 2,660</td>
<td></td>
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<tr>
<td>High, 860 (6/1)</td>
<td>Average: 532</td>
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<tr>
<td>Sundays (5) – 1,252</td>
<td></td>
</tr>
<tr>
<td>High, 352 (6/23)</td>
<td>Average: 250</td>
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<tr>
<td>Weekdays (20) – 2,100</td>
<td></td>
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<tr>
<td>High, 219 (6/13)</td>
<td>Average: 105</td>
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<tr>
<td><strong>CREEKFIELD HIKES</strong> (14)</td>
<td>163, Average: 12</td>
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<tr>
<td><strong>SNAKE PROGRAM</strong> (5)</td>
<td>164, Average: 33</td>
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<tr>
<td><strong>CHILDREN’S STORYTIME</strong> (5)</td>
<td>100, Average: 20</td>
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<tr>
<td><strong>ALLIGATOR PROGRAMS</strong> (8)</td>
<td>106, Average: 13</td>
</tr>
<tr>
<td><strong>SUNDIAL</strong> (2)</td>
<td>56, Average: 28</td>
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<tr>
<td><strong>OUTREACH</strong> (5)</td>
<td>305, Average: 61</td>
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<tr>
<td><strong>WILDLIFE VIEWING</strong> (3)</td>
<td>47, Average: 16</td>
</tr>
<tr>
<td><strong>ECO-EXPLORERS</strong> (6)</td>
<td>154, Average: 26</td>
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<tr>
<td><strong>OTHER PROGRAMS</strong> (14): Owls (2), Mammals, Gorgeous Gorge Hike, Bike Hike, Photo Hike, Hoot’s Hollow Hike, Geocaching (3), Birds (2), Skulls, Pondlife</td>
<td>200, Average: 14</td>
</tr>
<tr>
<td><strong>TOTAL VISITORS SERVED IN HIKES AND PROGRAMS</strong></td>
<td>1,295</td>
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<tr>
<td><strong>VOLUNTEER HOURS</strong></td>
<td></td>
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<tr>
<td>Interpretation = 1,744.6</td>
<td></td>
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<tr>
<td>Maintenance/Other = 809</td>
<td></td>
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<tr>
<td>TOTAL = 2,553.6</td>
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<tr>
<td><strong>PARK ATTENDANCE</strong></td>
<td></td>
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<tr>
<td>(Percentage reflects the percentage of total visitors in each category.)</td>
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<tr>
<td>2013 TO 6/30</td>
<td></td>
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<tr>
<td>NC 45,733</td>
<td></td>
</tr>
<tr>
<td>Park 140,902</td>
<td></td>
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<tr>
<td>Total 17,192</td>
<td></td>
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<tr>
<td>Day use (75%) 12,904</td>
<td></td>
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<tr>
<td>Overnight (25%) 4,288</td>
<td></td>
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<tr>
<td>NC (35%) 6,012</td>
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</table>

Did you know the park has several natural spaces that are ideal for birthdays, weddings, family reunions, banquets and any other event you can think of :)
AMERICAN ALLIGATORS IN TEXAS

Name: The American alligator (*Alligator mississippiensis*) receives its name from a corruption of the Spanish "el lagarto," or lizard. The current spelling dates back to at least 1699.

Range: The distribution of American alligators (*Alligator mississippiensis*) in Texas is limited by habitat and temperature requirements to the eastern portion of the state. The greatest density of individuals occurs in areas with the best wetland habitats, such as coastal marshes, natural lakes, riverine wetlands, and some reservoirs. The highest concentrations occur along the Gulf Coastal Plains. The American alligator is the only crocodilian native to Texas.

Size/Age: Newly hatched alligators measure 8-9" in length. Males and females grow at similar rates until they reach 3'. Females then grow much slower than males. Male alligators at age 10 can be 8' long, but females at age 10 are usually only 6-7' long. At age 20, males can be up to 11' long, and females can be up to 8' long. Any alligator over 10' long is usually male. Males can reach ages of 35-40 years in the wild. In captivity, they have survived up to 80 years of age. Older males are the exception and not the rule. Females can reach 30-35 years of age in captivity, but few females live that long in the wild. The longest recorded alligator (19' 2" long) was taken in Louisiana in 1890. It could have weighed up to 2,300 lbs. The largest alligator harvested in Texas was in 1998 and measured 14' 4" in length with an estimated weight of 900 lbs. Today, most alligators rarely reach beyond 10' in total length. One this size could weigh 250-300 lbs. Most alligators observed in Texas are typically 5-6' long and weigh 25-50 lbs.

Food: American alligators less than 3' in length mainly eat spiders, insects, crawfish, shrimp, minnows, and crabs; however, they will eat other food sources that are small enough for them to swallow whole. As they grow larger, fish, turtles, frogs, snakes, and small birds become an important part of their diet. Alligators greater than 4' long eat a wide variety of food items and are very opportunistic. The diet of an adult alligator is mostly made up of crawfish, crabs, non-game fish, and carrion. Occasionally, game fish, large turtles, wading birds, waterfowl, muskrat, nutria, otters, raccoons, alligators, feral hogs, and white-tailed deer are eaten. Non-food items, such as shotgun hulls, glass bottles, brass objects, and wood are frequently consumed by alligators, so it is important not to litter.

Nest: Courtship and mating begins in late spring and continues through early summer. Females usually begin building nests in May and June. The nest mound is usually composed of grasses, cattails, bark, mud, and other vegetation available in the area. The female usually lays 15-60 eggs in the mound and compresses the mound by crawling across it. Clutch size averages 35 eggs, but clutches of 80 have been observed. The eggs hatch about 65 days after being laid, usually in late August and early September. Solar radiation and decaying vegetation provide the heat necessary for incubation of the eggs. Temperature of the eggs during incubation determines the sex of the young produced. A group of hatchling alligators is called a "pod."

Alligators and People: With the human population in Texas continuing to expand, increased contact between people and alligators can be expected. Alligators naturally shy away from humans. However, problems do arise when people feed alligators because the alligator loses its fear of humans and begins to associate people with food. This produces a potentially dangerous situation. An alligator that has been frequently hand-fed will often lunge at an outstretched hand. This action is often interpreted as an "alligator attack" when in reality the alligator has been conditioned to respond to an outstretched hand expecting to be fed. For this reason, it is wrong to feed any wild alligator. Although alligators are normally sluggish or lethargic in appearance, they can become quite agile if disturbed or annoyed. People and pets should never approach alligators closely. This is particularly true of nesting females. As with all wild animals, people should treat alligators with respect. Alligator-human conflicts are rare in Texas. No human fatality attributed to alligators has been recorded in Texas. Good judgment on the part of humans can keep incidents at a minimum.
QUESTIONS FROM THE CURIOUS
Submitted by Nelda Gay

Visitors to Brazos Bend come for many reasons: love of nature, curiosity about alligators, or just a desire to get outdoors for awhile, to name a few of the many reasons they are here. However, our visitors are not a captive audience, and they are here because they want to be. Many of the visitors seem to be filled to the brim with questions, and we welcome them, even though we may not have all the answers. Although we sometimes have some strange inquiries, we want to be sure that no visitor ever feels as though he or she has just asked a “stupid” question. After all, there is no such thing as a stupid or “dumb” question from someone who is interested enough to ask it! As a teacher, questions clue me in on just where that person is in knowledge and understanding and can be used to encourage further learning and interest. And, of course, questions serve to keep us alert, challenged, and ready to learn, sometimes from the questioner. On the other hand, some questions are amusing.

With thanks to a few other volunteers, David Heinicke, and Sharon Hanzik, below are some questions that can help us with ready information as reminders and perhaps even bring a smile.

Some practical questions over the years:

Q - How long has the park been here?
A. - Before this land was acquired by the state in 1976, it was privately held ranch and hunting lease, also used for cattle grazing and pecan groves. The Karankawa Indians had lived in the area until the mid 1800s. Brazos Bend State Park was opened in April, 1984.

Q - How big is the park?
A - It is about 5,000 acres.

Q - How many alligators are in the park?
A - About 300 that are 6 feet and over. (We don’t count the smaller ones.)

Q - What do you feed the alligators?
A - Nothing. They feed themselves and dine on meat, including snakes, turtles, raccoons, nutria, and fish, crayfish, frogs, and birds, and sometimes other alligators.

Q - How long can alligators hold their breath?
A - This is up for debate, but probably for about 15-20 minutes when the weather is warm and up to 8 - 10 hours when it is very cold.

Q - Where can we buy some food (sandwiches, hamburgers, or something)?
A - Our gift shop offers some snacks and beverages, but for something more substantial, you can go out the park entrance, take a left, go about a mile down the road, and take a choice of the convenience store/grill on your right or the convenience/feed store on the left. Take your receipt with you for readmission to the park.

Q - Where is some water (to drink)?
A - Headquarters, Nature Center, and any restroom/shelter area (camping areas, Hale Lake, Elm Lake, 40-Acre Lake). There are also water stations at the Observation Tower (40-Acre Lake) and the back of Elm Lake, which are serviced by volunteers from April to November. Note: The water at the trailer dump station is NOT potable.

A Favorite of Sharon’s

Q - Can you tell me or show me which snakes are the “bad” snakes?
A - There are no "bad" snakes. Some are more dangerous than others, but nothing is nature is "bad." Everything has a purpose. The only time something might be considered "bad" is when populations are out
Some of David’s Favorites

Q - Have you ever had a person attacked by an alligator?
A - No. We have had some close calls, but volunteers and staff do a great job of heading off problems before they happen.

Q - Have you had dogs eaten by alligators before?
A - I am sure we have lost a few, but they have been by people letting their dog enter the water or drink from the lakes. We have never had an alligator come out of the water and grab a dog. I’ve heard rumors that there were a couple of dogs eaten shortly after the park opened but I’m not sure. I know that no dogs have been eaten by alligators in the last 20 years.

Q - Do you ever get people bitten by venomous snakes and has anyone in the park ever died from a snake bite?
A - Sure (bitten), but according to my records, with nearly 7 million visitors to BBSP, we have had only 12 venomous snake bites and 10 of those have been from people trying to catch the snake or trying to kill the snake. You want to get bitten by a snake? Just try to catch it. No one has ever (yet) died from a snake bite at BBSP. Yes. People have been bitten. It’s usually someone trying to either catch or kill the snake or someone walking around bare-footed or in sandals. If you stay on the trails, don’t put your hands and feet anywhere you can’t see and wear close-toed shoes you probably won’t have a problem. And above all, if you see a snake LEAVE IT ALONE! No one has ever died from a snake bite at Brazos Bend.

Q - How fast can alligators run?
A - Faster than the fastest person can for the first 30 - 40 feet. [Farther isn’t necessary.]

Q - How fast can alligators swim?
A - Faster than the fastest person. Remember, in both cases it is the alligator that says “GO!”

Q - Have we ever had alligator hunting in the park?
A - No, and hopefully, we never will.

Some more favorites:
  What size boot do you wear?
  Who sews the patches on your uniform?
  Are you sure those baby black widows can get enough air to breathe in there? (The only person to express concern for the well-being of the black widow babies.)
  Do the alligators just keep living and living until they die?
  Where do you keep the alligators at night?
  Did the tarantula lose some hair? A - (Overheard) Yeah, male pattern baldness.
  Are we going to see cockroaches on our hike? That’s my favorite animal!
  How do I get your job? A - Be willing to take a big pay cut.

ALLOSAURUS…BIRD AND CROCODILIAN??!
By Paige Norwood

I recently watched a BBC special, Allosaurus: A Walking with Dinosaurs Special, and discovered a surprising find….the dinosaur Allosaurus resembles both modern bird AND crocodilian traits! Researchers have run diagnostic and forensic tests on “Big Al,” an allosaurus found in Wyoming. Based on his physiological structure and the way he moved, he was more closely related to modern day birds, such as the ostrich. BUT, based on his brain structure (bigger smell receptors, smaller cognition center), they found that, like crocodilians such as our ‘gators, he didn’t pre-select his prey, but chose his food instantaneously. It’s remarkable that this animal resembles not one, but TWO, contemporary species, and that scientists have supportive evidence for each.
UNIQUE AND PECULIAR

By Bob Schwartz

While working on Chinese Tallow tree control with Jim Calvert and Akiko Noma, Akiko spotted this caterpillar on a tree. After describing this amazing creature to Sharon, she suggested that it could be a Saddleback Caterpillar. Following is a synopsis of the description of this lovely caterpillar, from an edition of *Peterson First Guide to Caterpillars*.

This caterpillar gets its name from the brown saddle markings on its smooth green back and has stiff, stinging hairs on fleshy filaments, giving it the appearance of having many branched spines. Two brown filaments extend from the front and two from the rear, with many shorter ones along each side. Brushing the skin against these spines can be quite painful. The Saddleback Caterpillar, a small larva just 1 inch long when mature, feeds on a variety of plants including apple, cherry, oak, asters, blueberry, rose, and corn. The adult Saddleback Caterpillar Moth is less commonly seen than the larva and the female is larger than the male, with a wingspan of 1 1/2 inches. It is mainly an Eastern species, ranging from Massachusetts to Florida and west to Missouri and Texas.

ABOUT THOSE FASCINATING, VENOMOUS SNAKES

by Nelda Gay

*Sharon Hanzik has been emailing links, as continuing education, about some of the same snakes that we have in the Nature Center*. By going to the [www.tpwd.state.tx.us](http://www.tpwd.state.tx.us) site, you can review the interesting and relevant information about the western cottonmouth, southern copperhead, canebrake rattlesnake, western pygmy, and coral snakes. And there are more! Since these live snakes are included in our snake exhibits, this information could help prompt conversation with our visitors and encourage their interest. Below are brief excerpts from descriptions found on the TPWD site. For more engrossing facts, check out the site to see what you can discover!

**WESTERN COTTONMOUTH**

Also known as ‘water moccasins’, only one recognized subspecies is found in Texas; Western cottonmouth (*A.p. leucostoma*). They are world’s only semi-aquatic viper. Cottonmouths can be dark brown, olive-brown, olive green or almost solid black. They are marked with wide, dark bands, which are more distinct in some individuals than in others. Juvenile snakes are more brilliantly marked. The cottonmouth gets its name from the white tissue inside its mouth, which it displays when threatened. This heavy-bodied snake, which averages about 3-1/2 feet in length, is found over the eastern half of the state in swamps and sluggish waterways, coastal marshes, rivers, ponds and streams. Diet includes fish, frogs, lizards and other snakes.

**SOUTHERN COPPERHEADS**

Southern copperheads reach an adult length of 24 to 26 inches (60 to 66 cm). They have a pale brown to light tan body, often with a pinkish tint. Their yellow eyes have elliptical or cat-like pupils. Its body, covered with rough scales, is patterned with dark, hour glass-shaped cross bands, wider at their base and narrow across the back. Copperheads have heat-sensing "pits" located between the eyes and nostrils, hence the name "pit viper". Diet consists of baby cottontails, swamp rabbits, rats, mice, birds, snakes, lizards, baby turtles, frogs, toads and insects.
Canebrake Rattlesnake

Subspecies of *C. horridus* (Timber Rattlesnake) share physical characteristics of length and shape but differ slightly in coloration. *C. h. atricudatus* (Canebrake Rattlesnake) is generally distinguished by a brown stripe that runs down the middle of its back. It is typically overall a gold-brown in color, fading to lighter on the underside, with black crossbanding. Its tail end darkens to become all black, leading to the colloquial name of "velvet tail" rattlesnake. Rabbits, squirrels, rats, mice and occasionally birds, other snakes, lizards and frogs are their prey.

Western Pygmy

A small species with adults usually growing to 40–60 cm (16–24 in) in length. Maximum reported length are 78.8 cm (31.0 in) (Klauber, 1972). Snellings and Collins (1997) reported a specimen of *S. m. barbouri* measuring 80.3 cm (31.6 in), but it had been in captivity for over 12 years. The largest *S. m. barbouri* reported by Gloyd (1940) was a specimen measuring 63.8 cm (25.1 in) from St. Petersburg, Florida. Shine (1978) suggested that in some populations males may be larger than females, but a later study by Bishop et al. (1996) did not find sexual dimorphism of any kind in a population in Volusia County, Florida. Diet consists of small mammals, amphibians, lizards, and other snakes.

Coral Snake

The coral snake found in Texas (*Micrurus fulvius tenere*) is the only black, red, and yellow crossbanded serpent whose red and yellow bands touch: "Red against yellow kills a fellow." Its uncommon look-alikes, the milk and scarlet snakes, have red and yellow bands separated by narrow black rings: "Red against black, poison lack." The coral’s black bands, in contrast, are as broad as its red ones and are separated by bright sulfur rings; the head and tail are marked only with black and yellow, and, unlike those of nonvenomous snakes, the coral’s body bands continue uninterrupted across its belly. The bright colors of the coral snake may serve both as a warning signal and as camouflage, for at night, when red appears as gray, on the dappled forest floor its alternating light and dark make the snake’s shape less discernible to owls and other predators. The Texas coral snake feeds almost exclusively on other snakes.

Alligator Wallow

*by Rick Dashnau, Sunday, July 7*

As the water is evaporating from our lakes at Brazos Bend State Park, there are shallow pools forming here and there. As the water recedes, sometimes there are fish and other aquatic life trapped in those pools. The alligators know that food is in the pools, and now they can be seen foraging there. If the pool is small, an alligator will try to keep it all to itself. This can lead to some interesting behavioral displays, as other alligators have the same idea.

Most of the time, one of the alligators retreats, and sometimes this means that it will move up onto a trail. Since the water is sometimes gone from one side of the trail, the alligator doesn’t cross the trail, but instead will walk down the trail until it has passed its antagonist, and it then turns back and reenters the water on the same side of the trail that it left from.

And this is what happened here. I was on the Observation Tower when I noticed the quick movements of two alligators facing off near the Spillway trail. I moved down to the trail, and had just started watching the two alligators through my camera when a family came riding up on bicycles. One alligator rushed the other, and the other retreated. I called out to the family to keep moving past the
alligator—since I figured that it would climb on the trail to escape. I was correct. It did come onto the trail, and it lay down near a tree.

Now, as usual, I began talking to the visitors about what was going on. Soon after that, the alligator on the trail stood up and began high-walking towards us. I couldn’t begin shooting video because I wanted to be sure I kept an eye on all the folks involved, and on the alligator. I did shoot a few pictures, though.

So, the alligator moved towards us, and I’d back everyone up a few steps. And the alligator kept walking, so I moved back a few steps more. I knew the alligator was moving past the one in the water—and I also knew that they only walk about 20 steps or so before resting. I knew it would soon turn back to the water or lie down and rest. It finally did both. I was just enjoying the entire event, and all the while, one of the family members was shooting video with his phone. They sent me the video clip in an email.

And that’s one of the cool things that happened at BBSP. It was great hearing from the Bealers, and thanks to them for taking the time to email me the video.

GEOCACHING…AN ADVENTURE

by Paige Norwood

My husband, Brandon, and I recently traveled out to Arizona for a mini-family reunion over the July 4th holiday weekend. Part of the trip was spent up in Sedona/Grand Canyon area, which to me was a dream come true. I was speechless as I looked out over the ridge at the Bright Angel Trailhead….and that’s just one corner!

On this trip, though, our brother-in-law introduced us to a nifty little app for Androids (and iPhones) called c:geo, which allows you to search, store and record geocaches you find—whether you’re in Houston, away on vacation, or even here at Brazos Bend! Not sure if you want to invest in a handheld GPS quite yet? The app has the same functionality, including a compass that guides you to the location, PLUS it contains the “log book” or comments about the cache. Not in a place with Internet service (i.e. the Nature Center at Brazos Bend)? You can store cache coordinates and update the ones you located (or didn’t locate) when you have Internet connectivity. The app is linked to the www.geocaching.com website, so if you already have an account, you’ll be able to link your existing information and go! If not, you can sign up and get started! We’ve already found several caches in Arizona and back here in TX and go cache hunting whenever we can.
SAFETY NEWS
TPWD Safety Program Manual (Revised 10/2012)

The TPWD Safety Manual is required reading and compliance for all BBSPVO members. The manual is on the website in the Members section. Please read the manual as soon as possible and comply with all the mandates. In order to help you become acquainted with the Manual, the newsletter will contain a summary of various portions of the manual over the next few issues. This summary does not take place of reading the entire manual, but it will provide you with an overview and where to find items of special interest to you. You are personally responsible for finding out exactly what is in the manual regarding safety for staff, volunteers and others.

OCCUPATIONAL HEALTH PROGRAM:

The following sections are included in the safety program manual relating to emergency first aid and employee workplace safety. Park employees are strongly encouraged to receive CPR and First-aid training, and volunteers have opportunities for training to prepare for responses in case of emergencies. The TWPD Safety Program has guidelines to address incidents that may happen.

18.0 First Aid:
First aid equipment should be available with easy access in park facilities and vehicles. Be sure to be familiar with the equipment available, its purpose, and techniques for use. Remember, we never dispense drugs, such as aspirin to visitors, but can offer band-aids.

The other sections in this portion of the manual offer detailed guidelines that include storing, lifting and transporting loads, and rules for handling hazardous chemicals. Be sure to refer to any that affect your volunteer work at BBSP.

19.0 Ergonomics
20.0 Hazard Communication
21.0 Hearing Conservation
22.0 Personal Protective Equipment
23.0 Respirator Program
24.0 Confined Space Entry

MOTOR VEHICLE SAFETY

Here is a brief summary from the Manual for Motor Vehicle Operations.

Safe Driving:
Accidents are preventable. Remember, driving a TPWD vehicle is a responsibility.

* Familiarize yourself with the vehicle before driving.
* Be sure that the vehicle is equipped with a first aid kit and is in safe condition for operation.
* Operate vehicles within the legal speed limit, avoiding distractions, and driving defensively.
* Do not engage in using handheld phones, texting, or smoking.
* Focus your attention when engaging in backup maneuvers. Use a spotter when necessary.
* Follow rules on number of passengers and use seatbelts.
* Load any materials securely.
* Drive responsibly.

Report any/all vehicle incidents or damage, no matter how minor they may be.

“TPWD is liable for property damage, injury and death caused by negligent motor vehicle accidents if the employee operating the vehicle would have been personally liable under Texas law.” (TWPD Safety Manual)
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>August 10</td>
<td>Geocaching 101, 10:30 AM, Nature Center</td>
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<td></td>
<td>Budget and Executive Meetings, 3:00 PM</td>
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<td></td>
<td>Regular Business Meeting, 5:30 PM (Supper, 5:00 PM)</td>
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<td>August 24</td>
<td>Geocaching 101, 10:30 AM, Nature Center</td>
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<td>August 31</td>
<td>Geocaching 101, 10:30 AM, Nature Center</td>
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<td>September 7</td>
<td>Geocaching 101, 10:30 AM, Nature Center</td>
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<td>Amphibian and reptile photography Photo-walk, 5:00 PM, meet at NC</td>
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<td>September 14</td>
<td>Budget and Executive Meetings, 3:00 PM</td>
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<td></td>
<td>Regular Business Meeting, 5:30 PM (Supper, 5:00 PM)</td>
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<tr>
<td>September 20</td>
<td>Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building</td>
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<td>September 21</td>
<td>Geocaching 101, 10:30 AM, Nature Center</td>
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<tr>
<td>September 28</td>
<td>Geocaching 101, 10:30 AM, Nature Center</td>
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<td>October 5</td>
<td>Landscape photography Photo-walk, 5:00 PM, meet at Nature Center</td>
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<td></td>
<td>Brazos River Pickers, 5:00 - 7:00 PM, Amphitheater</td>
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<td>October 12</td>
<td>Budget and Executive Meetings, 3:00 PM</td>
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<td>Regular Business Meeting, 5:30 PM (Supper, 5:00 PM)</td>
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<td>October 18</td>
<td>Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building</td>
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<td>October 19</td>
<td>Volunteer Organization Picnic, Dining Hall, 5:30 PM</td>
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<td>November 2</td>
<td>Bird photography Photo-walk, 3:00 PM, meet at Nature Center</td>
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<td></td>
<td>Brazos River Pickers, 5:00 - 7:00 PM, Amphitheater</td>
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<td>November 8</td>
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<td>November 9</td>
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<td>November 22</td>
<td>Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building</td>
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<td>December 7</td>
<td>Photo Walk: Landscape Photography, 3:00 PM, Nature Center</td>
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<td>Bird Blizzard at Sunset, 5:00 PM, 40-Acre Lake Observation Tower</td>
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<td>December 6</td>
<td>Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building</td>
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<td>December 7</td>
<td>Landscape photography Photo-walk, 3:00 PM, meet at Nature Center</td>
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<td>A Simple Christmas, 3:00 - 7:00 PM, Nature Center grounds</td>
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<td></td>
<td>Brazos River Pickers, 5:00 - 7:00 PM, Amphitheater</td>
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<tr>
<td>December 14</td>
<td>Annual Christmas Bird Count</td>
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REGULAR VOLUNTEER EVENTS

Creekfield Hikes  Every Saturday and Sunday  at 10:00 AM, led by volunteers
Photo Hikes  First Saturday of each month  at 5:30 PM, supper at 5:00 PM
Volunteer meeting  Second Saturday of each month  at 5:30 PM, supper at 5:00 PM
Bird Hikes  See schedule in calendar

BRAZOS BEND STATE PARK
VOLUNTEER ORGANIZATION

VOLUNTEER ORGANIZATION OFFICERS

President: Mary Lockwood
Vice-President: Glen Kilgore
Secretary: Belinda DiMarcello
Treasurer: Bob Kowalewski
Past-President: Offie Walker
Comptroller: Nancy Lynn Jones

NEWSLETTER TEAM

Editor: Anna Dell Williamson
Assistant Editor: Joe Southern
Editorial Assistant: Nelda Gay
Production Assistant: Bruce Williamson
Distribution: Carol Ramsayer
Web Master: Anne Shelton

The Brazos Bend Bunch Bugle is the newsletter of the Brazos Bend State Park Volunteer Organization, A.K.A. The Brazos Bend Bunch. It is distributed monthly to volunteers through the BBSPVO web site. For further information on this newsletter or the volunteer program, contact David Heinicke or Sharon Hanzik at Brazos Bend State Park, phone 979-553-5101.

Opinions expressed in this newsletter are the opinions of the author of the article and do not necessarily reflect the official position of Brazos Bend State Park Volunteer Organization nor of BBSP administration. The deadline for Newsletter contributions is the Saturday following the monthly meeting, if mailed to Anna Dell Williamson, or at the meeting if delivered to the park. (E-mail address: <awilliamson4@comcast.net> or <newsletter@brazosbend.org>). Notify Anna Dell (281-485-2843) well in advance of any events you want announced in the newsletter.

In the end, we will conserve only what we love, we will love only what we understand, we will understand only what we are taught.

Baba Dioum, Senegal
African Conservationist