



BRAZOS BEND BUNCH BUGLE

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PRESIDENT'S REPORT

WINTER



SOLSTICE

'Winter Solstice' is the term used to describe the Sun's 'standing still'. At this time the Sun is the lowest in the sky that it can get (in the northern hemisphere). In ancient times great celebrations were held to celebrate this event and to anticipate the return or the 'rebirth of the Sun' as it begins to climb higher in the sky. Some religious cultures have historically recognized this time as the 'birth of the Son'. (32N;35E)

Season's



Greetings!

Peace On Earth

LOSS OF A VOLUNTEER FRANK GREGG

Brazos Bend State Park Volunteer Organization was saddened to hear of the death of Emeritus Member **Frank Gregg** on November 28, 2013. Frank had been a member of the BBSPVO for over 25 years. He had been unable to volunteer for quite some time. Frank's contributions included trail maintenance and other maintenance activities, botany - he contributed to the creation of the wildflower/plant ID cards in the touch table room - and participation in various other volunteer activities.

Our heartfelt sympathy goes to his family and friends.

NOVEMBER MEETING NOTES

submitted by Melanie Jahn

Mary Lockwood called the November 9, 2013 meeting to order. There were 10 volunteers, 3 staff members and 4 VITs attending. Thanks to Mary Lockwood, the Baregala family and Melanie Jahn for dinner.

Committee Reports:

Maintenance: Woody Scott reported that the maintenance crew split a lot of wood and trimmed quite a bit on Horseshoe Trail. TPWD rules are that we must use warning flags on the John Deere Gators.

Gift Shop: Beth Debenport reported that this October was better than this time last year. We are looking for new merchandise to sell.

Wood: Chuck Duplant reported that we received 82% on wood sales, and we're always aiming for 100%. The November Blood Drive had 13 donors with 16 components.

Outreach: Judy Strauss reported that we have had several outreach programs recently, with the most recent being Texian Market Days at George Ranch and Prairie Heritage Days. An outreach with the Exchange Club is coming up.

Budget: The following purchase requests were presented and approved:

- 25 Fifty pound bags of deer corn
- New projector screen and wheels
- Alternator for John Deere
- Duplicate copies of renderings for BBEEC

There was discussion on the confusion of some trail signs, including the sign on Live Oak to the Nature Center and Red Buckeye. We hope to get those problems alleviated.

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*This issue was edited by
Anna Dell Williamson*

DECEMBER MEETING NOTES

submitted by Anna Dell Williamson

President Mary Lockwood called the meeting to order December 14, 2013. There were 11 volunteers and 2 staff members present. Thanks to Pete Hart, Mary Lockwood and Anna Dell Williamson for bringing dinner items.

Woody Scott brought the budget report. The following requests were presented and approved:

- Deer corn for the deer hunt. Donations from the hunt will pay for the corn.
- Tarps for overnight camping for official park business, from the Superintendent's fund.
- Wall-mounted donation box
- Repair of used diesel pump, out of Equipment repair fund.
- Forty prairie plants purchased out of the Ron Morrison fund.

Committee reports:

Maintenance and Wood: Pete Hart reported that this was a good month for wood.

Maintenance reported that new seat belts that retrace have been installed on the John Deere Gators. 46 volunteers put in 136 hours, and additional help is welcome. There are lots of trees dying from last year's drought and falling. The crew wants to build a new lean-to to split wood under.

David Heinicke reported that the Christmas Bird Count results will be available later.

STAFF REPORTS, NOVEMBER

submitted by Melanie Jahn



STEVE KILLIAN, PARK SUPERINTENDENT

Steve Killian reported that we have had a record year in attendance. A lot was accomplished during the 24,000 volunteer hours. The deer hunt is December 10 - 12. A youth hunt is set for December 22 and 23.

SHARON HANZIK, INTERPRETIVE RANGER, VOLUNTEER COORDINATOR

Sharon Hanzik welcomed the VITs. Signing up to work Nature Center, Gift Shop and Creekfield has been good, but it would help if people would sign up earlier. We still need people for A Simple Christmas. Joining Facebook has been great for the Park!

There were approximately 900 people at the Birds of Prey program. The Friday after Thanksgiving is usually busy, and we will need people on the trails as well as in the Nature Center. Once again, much appreciation to ALL volunteers!





DAVID HEINICKE, INTERPRETIVE RANGER, LAW ENFORCEMENT OFFICER

David Heinicke reported on the Birds of Prey program and announced that there will be another program November 23 at 2:30. There is a bird count on December 14 with BBQ to follow. We have new venomous snake cages. We also received a speckled king snake and a corn snake.

STAFF REPORTS, DECEMBER

submitted by Anna Dell Williamson

JACOB DEMENT, ACTING SUPERINTENDENT

Jacob Dement brought his first report as Acting Superintendent. Steve Killian has been given the Superintendent position at Garner State Park and will report to duty December 1. Jacob thanked those who came to Steve's going-away party. Everything happened very quickly, and we wish him best of luck. Staff and volunteers presented him with a plaque as a gift.



We had a poor November, with bad weather forcing cancellation of some activities for safety reasons. It doesn't look much better for December. Fiscal Year 14 park revenue is down due to weather but we should catch up in the spring.

BBSP will post an announcement for a New Administrative III position to create a new position for Headquarters for an assistant office manager. We have also requested a replacement Park Store Manager, which should be posted in the next week or two.

At the November meeting, a request for hog-trapping equipment was tabled for more information. Jacob brought a video showing the Jager Pro hog control system. The feral hog problem is out of hand and calls for serious measures to try to control it.

SHARON HANZIK, INTERPRETIVE RANGER, VOLUNTEER COORDINATOR

Sharon reported that new volunteer training will be February 8, 15, 23. Anna Dell will be contacting mentors for assistance with the training.

The Park Xmas Party will be Thursday, December 19. It will be a potluck dinner, followed by an optional gift exchange.

On Christmas Day, the Nature Center will not be open, but the park will. On New Years Day the Nature Center and Gift Shop will be open, and activities will include a First Day Hike and a bike hike.

There are nine spaces left for the Moody Gardens Field Trip on January 24, which is open to all volunteers. There is no limit on how many may go through the Rainforest Pyramid

STEVE KILLIAN LEAVING BBSP

BBSP Superintendent Steve Killian was appointed Superintendent at Garner State Park. He began his job there on December 1. A farewell luncheon was held November 20 in the Dining Hall, attended by staff, hosts and volunteers. He was presented with a plaque recognizing him for his work at BBSP. We wish Steve well in his new assignment, and he, Jennifer and Austin will be missed. His email will remain the same: steve.killian@tpwd.texas.gov



Presentation of plaque by Jacob Dement



Austin Hager, last day in the Nature Center



Sharon gets the last word.

OUT OF THE MOUTHS OF BABES

submitted by Anna Dell Williamson

Working in the Gift Shop or Nature Center is a wonderful place to catch some really cute remarks from children. On New Years' Day, 2014, I heard the following:

A little boy told his mother: "I want to see the attigator."

A slightly older girls said to her parents: "Take my picture with the dragon."

IS THAT BABY ALLIGATOR A LIZARD?

submitted by Nelda Gay

Occasionally, in the Nature Center when a volunteer has a baby alligator in hand to show visitors, a visitor new to the park and who perhaps has not yet seen the larger, adult version along a trail, may ask the volunteer, "Is that a lizard?"

This could be an opportunity to offer some interesting information to the visitor, as found in Diana Oliver's *THINK YOU KNOW ANIMALS?* p. 53.

Lizards are more closely related to

- A. Crocodiles
- B. Alligators
- C. Snakes

Answer: Alligators and crocodiles are crocodylians, as are caimans and the endangered gharials. Snakes and lizards are both in the same order, Squamata, meaning *scaled reptiles*. They also both have flexible skull bones, most evident in snakes. Take away a lizard's legs, as in the legless lizards, and they are easily mistaken for snakes.

Or, in other words, lizards are most closely related to snakes.

THE LIFE CYCLE(S) OF A MONARCH BUTTERFLY

On December 4, Sharon Hanzik sent out the following email:

"Those of you who have been around the nature center in the past couple of weeks know that we have had a monarch chrysalis on display. It emerged overnight and today I released it at the way station and it joined about 5 other monarchs who were feeding at the time."

Then on December 27, Jo Anne Davis sent this article and picture of volunteer Noriko Utsuzawa's sons, who are engrossed in watching the hatching of a Monarch butterfly from another chrysalis that was brought into the Nature Center recently.



Monarch butterflies go through four stages during one life cycle. In February and March, the final generation of hibernating monarch butterflies comes out of hibernation to find a mate. They then migrate north and east in order to find a place to lay their eggs. This starts stage one and generation one of the new year for the monarch butterfly.

In March and April the eggs are laid on milkweed plants. They hatch into baby caterpillars, also called the larvae. It takes about four days for the eggs to hatch. Then the baby caterpillar doesn't do much more than eat the milkweed in order to grow. After about two weeks, the caterpillar will be fully-grown and find a place to attach itself so that it can start

the process of metamorphosis. It will attach itself to a stem or a leaf using silk and transform into a chrysalis. Although from the outside, the 10 days of the chrysalis phase seems to be a time when nothing is happening, it is really a time of rapid change. Within the chrysalis the old body parts of the caterpillar are undergoing a remarkable transformation, called metamorphosis, to become the beautiful parts that make up the butterfly that will emerge. The monarch butterfly will emerge from the pupa and fly away, feeding on flowers and just enjoying the short life it has left, which is only about two to six weeks. This

first generation monarch butterfly will then die after laying eggs for generation number two. The second generation of monarch butterflies is born in May and June, and then the third generation will be born in July and August. These monarch butterflies will go through exactly the same four stage life cycle as the first generation did, dying two to six weeks after it becomes a beautiful monarch butterfly.

The fourth generation of monarch butterflies is a little bit different from the first three generations. The fourth generation is born in September and October and goes through exactly the same process as the first, second and third generations except for one part. The fourth generation of monarch butterflies does not die after two to six weeks. Instead, this generation of monarch butterflies migrates to warmer climates like Mexico and California and will live for six to eight months until it is time to start the whole process over again.

It is amazing how the four generations of monarch butterflies works out so that the monarch population can continue to live on throughout the years, but not become overpopulated. Mother Nature sure has some cool ways of doing things, doesn't she?

Source: Our articles are free for you to copy and distribute. Make sure to give <http://www.Monarch-Butterfly.com> credit for the article. (You can also see photos of the stages of a Monarch's life cycle on the website.)

CONGRATULATIONS

JANUARY BIRTHDAYS

Dave Armstrong (Emeritus)
Justin Bowers
Joe Carmichael (Emeritus)
Sherida Carpenter
Nancy Dobbs
Sharon Hanzik (Staff)
Jim Hiett
Nancy Lynn Jones
Jane Minard
Ron Morrison
Jim North
Laszlo Perlaky (Emeritus)
Kayla Scott
Marilyn Vossler
Diane Welty
Bruce Williamson (Emeritus)

FEBRUARY BIRTHDAYS

Jerry Carpenter
Noel Duncan
Devin Elster (Staff)
Carl Franke
Bill Godley
Cole Ledman
Cindy Peterson
Pam Tatge
Judy Strauss

MARCH BIRTHDAYS

Willie Anderson (Emeritus)
Rita Cooper (Emeritus)
Joan Jackson (Emeritus)
Herb Mann (Emeritus)

FEBRUARY ANNIVERSARIES

Robert and Shannon Aaron
Suzie and Rick Gann
Pete and Carol Hart
Lindsey (Kahn) and Joseph LaCour

MARCH ANNIVERSARIES

Glen and Maureen Kilgore
Lara Malone
Dawn and Oscar Tejero



NATURE CENTER REPORT

OCTOBER / NOVEMBER 2013

Below are the totals of the various activities and attendance recorded for the Nature Center, hikes, and programs for October 1-31, 2013 and November 1-30, 2013. Both months had several rainy days. November was closed 3 days for the annual deer hunt and Thanksgiving Day. Volunteers and staff offered 36 programs and hikes in October and 52 in November.

PROGRAMS	TOTALS OCTOBER 2013	TOTALS NOVEMBER 2013
NATURE CENTER ATTENDANCE 2013 Oct. 5,214 / Nov. 6,114 2012 Oct. 6,083 / Nov. 6,332 2011 Oct. 7,564 / Nov. 6,091 2010 Oct. 7,855 / Nov. 5,338 2009 Oct. 6,258 / Nov. 7,488 2008 Oct. 3,759 / Nov. 6,312 2007 Oct. 4,809 / Nov. 4,577 2006 Oct. 5,258 / Nov. 4,286 2005 Oct. 4,848 / Nov. 4,306	Saturdays (4) - 2,628 High, 694 (10/5) Average: 657	Saturdays (5) - 6,091 High, 845 (11/2) Average: 1,218
	Sundays (4) - 1,008 High, 544 (10/20) Average: 252	Sundays (4) - 1,414 High, 507 (11/3) Average: 354
	Weekdays (23) - 1,528 High, 325 (10/11) <small>Veteran's Day</small> Average: 66	Weekdays (17) - 1661 High, 620 (11/29) Average: 98
CREEKFIELD HIKES (8 & 10)	93, average: 12	169, average: 15
SNAKE PROGRAM (3 & 5)	66, average: 22	92, average: 18
CHILDREN'S STORYTIME (5 & 5)	75, average: 15	114, average: 23
BIRDS (1 & 5)	22	91, average: 18
ALLIGATOR PROGRAM (2 & 3)	89, average: 45	67, average: 22
OUTREACH (3 & 2)	2701, average 900	688, average: 344
NIGHT HIKES (3)	28, average 9	25
OTHER PROGRAMS (16): Mammals (1), Photo Walk (1), Owls (3), Reptile (1), Prairie Hike (1), Designs for Defense (1), Halloween movie (1), Tracks (1), BBSP (1), Wildlife Viewing (4), turkeys (1), Geocaching (4), 40-Acre hike (1), Creatures of night (1)	126, Average: 13	262, average: 20
TOTAL VISITORS SERVED IN HIKES AND PROGRAMS	3,290 in 34 programs, average program, 97	2,444 in 43 programs, average program, 57
VOLUNTEER HOURS	Interpretation = 1,009 Maintenance = 582 TOTAL = 1,591	Interpretation = 1,459 Maintenance = 471 TOTAL = 1,930
PARK ATTENDANCE (Percentage reflects the percentage of total visitors in each category.)	Park Total 16,227 Day use (73%) 11,825 Overnight (27%) 4,402 NC (32%) 5,214	Park Total 20,971 Day use (69%) 14,538 Overnight (31%) 6,433 NC (29%) 6,114

MAINTENANCE REPORT

OCTOBER, NOVEMBER 2013

Wood Yard:

Split and bundle wood
Build wood rack
Install shelf

Mowing and Landscaping:

Trim Live Oak at entrance
Pull weeds
Trim blowdowns (Prairie, Hoot's Hollow, Creekfield, 100 Camping Loop)
Trim trees and mow around Live Oaks at Nature Center and Hoot's Hollow

Trail Trimming and Trail Maintenance:

Repair downed trail sign and improve intersection
Trim Horseshoe Trail

Equipment Maintenance:

Repair chain saw and pitchfork
Repair wood splitter
Install seat belts, flag holders and windshields on Gators

General Maintenance:

Winterize water stations
Fix gate lock

Pest Control:

Spray thorny vines
Treat tallow trees

Special Projects:

Collect prairie grass seed
Collect, deliver and water prairie plants
Plant grasses and wildflowers
Prepare and plant native seeds (Pocket Prairie)

THANK YOU

to **all volunteers** who responded to help with A Simple Christmas. Your efforts and willingness to help were appreciated, even though we did not have the event due to bad weather.

to **Rick Dashnau** for sharing information with us on alligator dens.

to **Nancy Dobbs** for article on Monarch butterfly and chrysalis

to **Mary Lockwood**, the **Baregala** family and **Melanie Jahn** and to **Pete Hart**, **Mary Lockwood** and **Anna Dell Williamson** for bringing food items for the November and December meeting suppers.

A SPECIAL THANK YOU

The Third Graders at Walker Station Elementary in Fort Bend ISD really enjoyed their field trip to Brazos Bend State Park on Oct. 18, 2013. Ms Sharon Hanzik helped schedule this event. The staff at the entrance were happy to see us and got us checked in quickly. The volunteers at the Nature Center were wonderful. The children saw alligators (YEAH!), rabbits, and many birds. The hike was fun and lunch at the playground was enjoyed by all. We have been bringing our 3rd Graders to the park for several years now. It is always one of the most memorable events of our year. We send our sincere thanks and hope to see you in October 2014.

Marsha Tredway
3rd Grade Math/Science
Walker Station Elementary

BBSP CHRISTMAS BIRD COUNT

Ed. Note: The Christmas Bird Count was held on December 14, 2013. Ninety participants recorded 159 species. Following is a musical report on the event and the results of the count. Save December 20, 2014, for the 30th BBSP Christmas Bird Count.

After today's fun but windy CBC with Hannah and company, I thought I would send you a little ditty that involved some audience participation during the tally dinner and meeting.

The Brazos Bend Christmas Bird Count version of the Twelve Days of Christmas 2013

(as hastily compiled by Jaci Elliott)

<p>On this Bird count at Christmas, we bird collectively... ...a barred owl we heard but didn't see.</p> <p>On this Bird count at Christmas, we bird collectively... ...two mourning doves and ...a barred owl we heard but didn't see.</p> <p>On this Bird count at Christmas, we bird collectively... ...three <i>no</i> moor hens ...two mourning doves and ...a barred owl we heard but didn't see.</p> <p><i>And so it goes, to the final verse, which follows:</i></p>	<p>On this Bird count at Christmas, we bird collectively... ...twelve larks a'larking ...eleven thrushes thrushing ...ten pipits piping ...nine sparrows sparing ...eight gulls a'laughing ...seven sandhills craning ...six snow geese sailing ...five golden finches ...four caracaras ...three <i>no</i> moor hens ...two mourning doves and ...a barred owl we heard but didn't see.</p>
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BRAZOS BEND 29TH CHRISTMAS BIRD COUNT RESULTS

Species Seen

Area	Area Description	2013	Record
<u>A</u>	<u>South Section – Brazoria County Properties and Damon</u>	<u>92</u>	<u>105</u>
<u>B</u>	<u>North Section – NRG Power Plant, Smithers Lake, and local roads</u>	<u>75</u>	<u>105</u>
<u>C</u>	<u>Park Section – Brazos Bend State Park and adjacent area</u>	<u>100</u>	<u>120</u>
<u>D</u>	<u>West Section – Davis Estates (Landfill), local properties and roads</u>	<u>127</u>	<u>127</u>
	Total Species Count – 5 th Consecutive Year Above 150	<u>159</u>	<u>159</u>



“Big Bird” Award Winner: Justin Bower

Great Kiskadee

Area D – Harrison Property

WATER TESTING REPORTS

submitted by Hannah Meddaugh

Ed. Note: One of the new environmental projects started by BBSPVO is a water testing project. Hannah Meddaugh is coordinating this activity and has sent the following reports on the November and December testing.

Sampling Date/Time: Sat. Nov 9th, 8:00-10:00AM

Tester(s): Hannah Meddaugh

Weather: Cool, lower 60s, mostly to partly cloudy. Light wind 5-10mph N-NW

Water body	Temp ()	Dissolved O ² (mg/L)	pH	Nitrates (mg/L)	Phosphates (mg/L)
Elm Lake	61.9	5.9	6.6	0	0
New Horseshoe	64.4	6.0	6.6	0	0
40 Acre	59.9	4.7	6.4	0	4.0
Pilant Lake	59.3	0.3	6.0	0	4.0
Creekfield	62.5	4.9	7.6	0	0

Notes/Comments:

A cold front on Thursday Nov 7th dropped lake temperatures to their lowest temperatures since we began testing this summer. Note water is sampled from shore with pool pole, to depth of 12 inches. This shallow water would have cooled faster than deeper water.

Pump activity in Elm Lake may have affected data.

Pilant Lake showed a great deal of flow with low surface agitation due to the Elm Lake pumps. However the water smelled sulfurous and was extremely yellow due to tannins from decomposing organic matter. Probably this water was being pulled from peripheral areas of the lake due to the pump suction.

Sampling Date/Time: Sat. Dec 7th, 8:00-10:00AM

Tester(s): Cindy Peet, Hannah Meddaugh

Weather: Cold, mid-30s, overcast, calm.

Water body	Temp (°F)	Dissolved O ² (mg/L)	pH	Nitrates (mg/L)	Phosphates (mg/L)
Elm Lake	49.3	5.3	7.6	0	0.5
New Horseshoe	51.4	4.8	8.0	0	0
40 Acre	49.8	6.1	7.6	0	0.5
Pilant Lake	43.2	0.3	6.6	0	2.0
Creekfield	47.3	6.6	8.0	0	0

Notes/Comments:

Water temperatures were significantly lower than last month, due to severe cold fronts prior to Thanksgiving and again late Thursday prior to this month's sampling. However warm days in between reached the 80s and probably helped warm the lakes a bit.

pH was slightly higher and phosphates lower in several sampled water bodies. Possibly this was due to the large amount of rain received in the Thanksgiving cold front, which would have diluted some of the natural acidity of our lakes.

New Horseshoe and Elm Lake dissolved oxygen levels were significantly lower than last month (last month: 6.0 and 5.9 respectively). This is unexpected since colder water holds more oxygen. It may be due to high levels of duckweed coverage in New Horseshoe (which blocks light and prevents photosynthesis from deeper in the water column). None of the other water bodies were currently experiencing duckweed blooms. Elm Lake may be experiencing residual effects from the pumping conducted last month, which introduced low oxygen water into the sampling area (by the observation tower). Additionally, vegetation die-off due to cold weather reduces oxygen content as it decays and may have been a factor. Significant die-off in vegetation was noted at Pilant Lake for example. This may counterbalance the expected increase in dissolved oxygen due to cooler water temperatures. With pumping ended, the flow evident in Pilant Lake last month was gone, but tannins in the water, a surface sheen and sulfurous smell indicated high levels of organic decay.

OUR NIGHT SKIES

Letter from Brent Leisure, State Parks Director

Sent: Sunday, October 27, 2013 10:44 PM

To: Division - State Parks

Subject: This Week in State Parks

Protecting the natural environment in state parks is rightly something we will always put at the top of things we do. We have a number of thorough processes and procedures in place for this very purpose. This role of guardianship in our state parks, natural areas and historic sites is critically important. Past, present and future generations count on our commitment to be good stewards of their lands, water, flora, fauna, scenic views and their night skies. Yes, even the night skies. For years we've taken great care to conserve and protect the environment of our parklands but we've not always considered the negative effect we've had on the dark sky environment. We are trying to remedy this with a focused effort to assess our lighting in parks, and adjust our own lighting so visitors can see what is too often out of view in many communities across the state.....a truly dark and magnificent night sky.

I traveled to Potomac, Maryland the last two weeks to meet with others in the conservation field. While I was there, I was struck by the lack of darkness and the absence of our stars. I couldn't help but think about the children who may have never experienced their awe inspiring beauty. I'm glad to be home now and couldn't wait to make my nightly inspection. The truth is, however, we don't have to be in a large eastern city to lose sight of our beautiful galaxy. We have our own light challenges right here in Texas, but it doesn't have to be the case. We've learned through the help from our friends at the International Dark Sky Association (IDSA) that we can do better. They have agreed to help us in assessing the darkness of our skies in parks and provide recommendations that improve these conditions. For those in the field, I urge you to welcome our friends from IDSA and take steps to control what we can within our boundaries. And with potentially even greater impact, share our love of the night skies with visitors so they too may go back and make wise choices on their personal and community lighting.

Take a look at the photos and it will help us to realize the impact we have, and what it is we miss when its out of view.



Photos by Chase Fountain

Thanks for all you do to protect the outdoor experience.

MASTER OUTDOOR LEADERSHIP TRAINING

Ed. Note: The following information is summarized from a letter sent to Region IV parks from Robert Owen, Texas Outdoor Family Program Coordinator, TPWD. If you are interested in this opportunity, contact Sharon Hanzik immediately.

The Outdoor Education Team of Region 4 is announcing the latest stage of the National Recreation Foundation (NRF) grant award that has been focused on the urban populations of the Houston area. TPWD was awarded a grant to expand the offerings of the Texas Outdoor Family (TOF) model to reach a larger, more diverse audience of non-typical state park users. A major function of the grant was a sustainability model that will keep these folks camping long after the 3 years of grant funds have run out. It has become apparent that for this to occur in the safe and responsible fashion that we expect from state park guests, the leaders of the grant partners groups will require an additional level of training. Thus has been born the “Master Outdoor Leadership Training” or MOLT.

Current grant partners in the Houston area consist of Pasadena ISD, Workshop Houston, Houston Parks and Recreation and others who see the value in getting children and families outside and reaching a primarily underserved urban audience. The audience for this training will extend beyond these partners to include others who want to hone their abilities as leaders in an outdoor group setting. Through a 30-hour training, folks will be exposed to the concepts of interpretive themes, risk management/safety, establishing relationships with park staff, Leave No Trace, hosting recreational activities, and more. After completing the training and subsequently volunteering for 40 hours in state parks in different capacities, these volunteers will have earned a MOLT stamp of approval as a competent instructor. It is our intention that these trained volunteers will be able to lead geocaching, photography, and interpretive programs at regional state parks. In addition to these skills, trained grant partners will have the capacity to deliver programs on behalf of TOF and the NRF grant with camping gear made available to them.

Region IV parks are invited to nominate a volunteer from their park who could benefit from the training. Presently the training is scheduled as follows:

Two weekday nights, 6:30pm – 9:30 pm, Feb. 25 and 26 (Tuesday and Wednesday) Camping through the weekend - 6:30 pm Friday, Feb 28 – Noon Sunday March 2 at Brazos Bend State Park.

ALLIGATOR DENS

by Rick Dashnau

Alligators alter their environment in various ways. They can make "gator holes", or "burrows" (which are sometimes called "dens".) During my time at the park (more than 10 years), I've been able to see some of these structures. While there are many references to alligator burrows, or dens, I can find little information on the actual shape and size of them. I've found some information in the recent book "Life Traces of the Georgia Coast ", by Anthony J. Martin, and his companion website of the same name.

The alligators make their structures to control the environment to their advantage. Gator burrows can serve as shelter from extremes in temperature (both hot and cold); as a receptacle for water (it can maintain some moisture within); and even as a temporary shelter from fire. An alligator den is usually excavated under the water. It goes straight for about a meter (3.28 ft), then can turn right or left. The burrow continues until an end chamber - sometimes above the water table, sometimes not - that is wide enough for the alligator to turn around. Professor Martin has measured at least one den that was 4.6 meters (15 ft) long! He and his associates used tape measures and ground-penetrating radar to take these measurements.

According to Anthony Martin's writings, alligators will sometimes nest near a den to allow easy access to the shelter. This would also explain how the small babies could survive their first few winters-the den would be an excellent temperature buffer to prevent the worst cold from reaching them. I've read that a den can be used to shelter baby alligators, and I have seen this in practice. One example: At the end of 2011, low water level revealed a den on an island in Elm lake. During the winter, a mother alligator and about 30 babies could be seen using the den until rising water hid it again. From the same sources, I have also read that dens can be used over many years, and a single den may be the shelter for different alligators over time.

A den in Pilant Lake--actually visible from the North loop of the 40 Acre Lake trail--caught my eye on 7/26/2013. I noticed some movement near the waterline. Something large was moving under the water, and I assumed that it was an alligator herding prey (what I call "seining"). But, when no prey was flushed out, and the alligator never caught anything, I knew otherwise. I believe the alligator was digging a burrow.



An interesting point to consider is that although many people seem to know that alligators make burrows (or dens), there seems to be very little information about how they actually make these burrows. An alligator's front feet barely reach to the tip of its nose when its skull is in line with its spine. How does it dig forward, and move the mud out of the way - and out of the burrow?

By 8/11/2013, the water had all but dried up. But, there was some remaining in the den. And, sharing the den (and the water) was at least one small frog. Later in the day, two vultures were poking around the edge of the den. The alligator did not confront them. The vultures appeared to be picking at the moist, rotted wood in the mud.



By 8/25/2013, we'd gotten a little rain. But we also got some baby alligators! If there had been a nest near this den, then it wasn't easily visible from the trail. But the baby alligators sure found it! I think the mother alligator was under the water, but I never saw her.

By 9/01/2013, we'd gotten a little MORE rain, as shown by the lush greenery. Here's the den, apparently uninhabited.



And that's the story. You can see more photos and videos and a model of a den at my web site

<http://www.rickubis.com/rick/gatr8.html>

CALENDAR OF EVENTS

2014:

- | | |
|-------------|---|
| January 11 | Budget and Executive Meetings, 3:00 PM
Brazos River Pickers, 5:00 - 7:00 PM, Amphitheater
Regular Business Meeting, 5:30 PM (Supper, 5:00 PM) |
| January 17 | Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building |
| January 18 | Bird Blizzard at Sunset, 5:00 PM, 40-Acre Lake Observation Tower |
| January 31 | Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building |
| February 1 | Brazos River Pickers, 5:00 - 7:00 PM, Amphitheater |
| February 8 | Budget and Executive Meetings, 3:00 PM
Regular Business Meeting, 5:30 PM (Supper, 5:00 PM) |
| February 21 | Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building |
| March 1 | Brazos River Pickers, 5:00 - 7:00 PM, Amphitheater |
| March 8 | Budget and Executive Meetings, 3:00 PM
Regular Business Meeting, 5:30 PM (Supper, 5:00 PM) |
| March 14 | Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building |
| April 4 | Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building |
| April 5 | Brazos River Pickers, 5:00 - 7:00 PM, Amphitheater |
| April 12 | Budget and Executive Meetings, 3:00 PM
Regular Business Meeting, 5:30 PM (Supper, 5:00 PM) |
| April 18 | Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building |

HAPPY NEW YEAR

Brazos Bend State Park

Texas Parks and Wildlife
21901 FM 762
Needville, TX 77461

NEXT MEETING **FIRST CLASS MAIL**

**SATURDAY, JANUARY 11, 2014
5:30 PM, NATURE CENTER**

☆☆☆☆☆☆



REGULAR VOLUNTEER EVENTS

Creekfield Hikes	Every Saturday and Sunday at 10:00 AM, led by volunteers
Photo Hikes	First Saturday of each month
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	Melanie Jahn
Treasurer:	Woody Scott
Past-President:	Offie Walker
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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**