Autumn in the Park

November brings with it the ‘changing of the guard’, as summer finally fades, and the colors of the trees announce that the days are shorter, the shadows and the nights are longer and the last of the migrating birds have passed through. Autumn also brings with it an influx of visitors, both day and night, into the park. Camp sites are full, the trails are heavily traveled and the Nature Center’s programs are well attended.

November starts out with the (post-Halloween) blood drive (how appropriate!) on the same day as the “Birds of Prey” program presented by EarthQuest. Volunteer Glen Kilgore will once again present the “Pond Life” program which is always well attended, as kids and adults have the opportunity to see living examples of the wide variety of aquatic life, both macro and micro that live in the park lakes. November is just a ‘warm-up’ for the “Simple Christmas” events coming our way on December 7th. Autumn in the park…what a beautiful season it is!

Our annual October Volunteer Picnic was October 19. A huge thank you to all those who came, brought food and helped make the picnic and ‘photo session’ a big success! A very special thank you to the set up and clean up teams. I was so surprised and relieved to come through the door and see the tables set up with the white tablecloths and decorations. Thank you, Chuck, for letting them in and helping out from beginning to end.

The food was great! The friendships are even greater! Congratulations to the award winners and thank you Sharon for the presentations.

Mary Lockwood
The Brazos Bend Volunteer Organization has experienced three losses in the past year - Candace Kanak passed away in June, and Jennifer Parent and Ron Dearman passed away in October. A portion of the annual picnic was dedicated to them. Emeritus Volunteer Dave Armstrong read tributes to each of these people.

**CANDACE KANAK:**
Candice became a volunteer 2006, and later that year she recruited her husband Tom. Candice helped out a great deal by maintaining the alligator aquarium and was awarded the 2007 Teamwork award for not only this but her continued support in the Nature Center and Gift Shop. She and Tom enjoyed working co-shifts in the Nature Center and Gift Shop, plus Water Station duty. Candice was a very kind-hearted person, willing to help out anywhere she was needed.

**JENNIFER PARENT:**
Jennifer and her husband Curtis have been volunteers since 2002. Jennifer was a caring, loving member of our family who never failed to "bring the brownies" each time she and Curtis visited to either make a water station run, walk the trails or take care of the firewood supply. They were awarded the 2009 teamwork award for their continued commitment. When they arrived at the Nature Center or stepped into the lounge, they often greeted volunteers with, "Everybody behave, the Parents are here". We soon adopted this saying ourselves.

A note from Curtis:
Sunday was her last day in our world. We lost her to a horrible infection called MRSA. She went out peacefully. She dearly loved the Park and the people she met there. I am planning a celebration of her life sometime in mid-November and will let you know when the date gets firmed up.

**Note:** We received an email from Curtis announcing the Celebration of Life for Jennifer. It will be Saturday, November 16, 2013 beginning at 3:00 PM, at his home, 11555 Riverview, Houston, TX 77077. This will be a casual, relaxed opportunity for everyone to reminisce and have closure from Jennifer's untimely departure. Wine, beer and snacks will be provided. Extra Kleenexes will be available on demand. Please no flowers. Donations would be welcome to Brazos Bend State Park Volunteer Organization. RSVP’s would really be appreciated but not required. Please email to: celebratejenniferslife@gmail.com.

**RON DEARMAN**
Ron has been a volunteer since 1992. He and his wife Dorothy volunteered together until health problems prevented her from continuing. Ron loved it so much that he kept volunteering despite his own health problems - stating many times that "this is one of the things that keeps me going". He served mostly in the Nature Center, sometimes spending an entire eight hours educating visitors about anything and everything, especially snakes. He was quite the jokester.

These volunteers do not leave a hole, but a legacy.
The following service and special awards were presented by Sharon Hanzik at the 2013 Brazos Bend Volunteer Organization picnic on October 19, 2013.

Five-year service awards (members since 2006):
  Dave Armstrong   Cindy Peterson   Pam Tatge   Dawn Tejero

Ten-year service awards (members since 2003):  Doug DeVries   Marilyn Vossler

Twenty-year service awards (member since 1993):  Nicole Olson

Customer Service:
  Suzie Gann for faithful service on Sundays in the Nature Center, leading school groups and working with EcoExplorers.

Education:
  Hannah Meddaugh for advancing water quality testing program, facilitating the BBSP Weather Station, planning for the BBEEC and future projects.

Leadership:
  Mike Manley for serving as Building Committee Champion and Wednesday service in the NC.

Excellence:
  Barbara Willy for work on the Building Committee Fund Raising, serving on the Gift Shop Committee, working regularly weekdays as GS operator, assisting with Special Events, developing Prairie programs (including models of prairie wildlife), and coordinating development of the Butterfly Way Station with the Girl Scouts.

Emeritus:
  Dave Armstrong, who has moved away from the Houston area. He worked faithfully in the Nature Center on Wednesdays, led school groups, served as Building Committee Champion and was BBSPVO Treasurer for two years.

Golden-Duster Award:
  Carl Franke received this coveted award. We’ve given him everything else and he still deserves recognition for his Saturday commitment to the NC, which includes a good cleaning every morning. He also interprets in the NC, leads a Geocaching program, and sends out calendar reminders to the membership about shifts that need to be covered.
BIRTHDAYS AND ANNIVERSARIES

**November Birthdays**
Ray Anderson  
Nelda Gay (Emeritus)  
David Heinicke (Staff)  
Steve Killian (Staff)  
Curtis Parent  
Sarah Petisky (Staff)

**December Birthdays**
Robert Aaron  
Beth Debenport  
Kathy Nevotti  
Jeff Orsak (Staff)  
Woody Scott  
Colton Southern  
Reyes Torres

**November Anniversaries**
Holly and Gene Haynes  
Mike & Paige Manley

**December Anniversaries**
Troy and Patty Henry  
Dennis (Emeritus) and Dorothy Keprta  
Joe and Sandy Southern  
Paige and Brandon Norwood

CONGRATULATIONS, NEW VOLUNTEERS

Veronika Vaneckova and Kayla Scott completed training recently. Give both of them a hearty BBSPVO welcome.

2012-2013 VOLUNTEER ORGANIZATION MEMBERSHIP

PHOTO BY CHUCK DUPLANT
Below are the totals of the various activities and attendance recorded for the Nature Center, hikes, and programs for September 1-30, 2013. September 4 was Labor Day, with programs and hikes offered. Sunday attendance was better than Saturday attendance (rare), probably due to rainy weather. Volunteers and staff presented 28 programs and hikes.

<table>
<thead>
<tr>
<th>Programs</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nature Center Attendance</strong></td>
<td></td>
</tr>
<tr>
<td>Saturdays (4) - 1,269</td>
<td></td>
</tr>
<tr>
<td>High, 530 (9/28)</td>
<td>Average: 317</td>
</tr>
<tr>
<td>Sundays (5) – 1,637</td>
<td></td>
</tr>
<tr>
<td>High, 453 (9/1)</td>
<td>Average: 327</td>
</tr>
<tr>
<td>Weekdays (21) - 916</td>
<td></td>
</tr>
<tr>
<td>High, 501 (9/2) Labor Day</td>
<td>Average: 44</td>
</tr>
<tr>
<td><strong>Creekfield Hikes (8)</strong></td>
<td>117, Average: 15</td>
</tr>
<tr>
<td><strong>Snake Program (4)</strong></td>
<td>66, Average: 17</td>
</tr>
<tr>
<td><strong>Children’s Storytime (2)</strong></td>
<td>41, Average: 20</td>
</tr>
<tr>
<td><strong>Hummingbird Banding (5)</strong></td>
<td>150, Average: 30</td>
</tr>
<tr>
<td><strong>Alligator Program (1)</strong></td>
<td>17</td>
</tr>
<tr>
<td><strong>Outreach (1)</strong></td>
<td>163</td>
</tr>
<tr>
<td><strong>Pondlife (1)</strong></td>
<td>25</td>
</tr>
<tr>
<td><strong>Other Programs (7): Birds (1), Animal Tracks (1), Geocaching (1), Photo Walk (1), Butterflies and Bugs (1), Owls (1), Skulls (1)</strong></td>
<td>42, Average: 6</td>
</tr>
<tr>
<td><strong>Total Visitors Served in Hikes and Programs</strong></td>
<td>596</td>
</tr>
<tr>
<td><strong>Volunteer Hours</strong></td>
<td>Interpretation = 479</td>
</tr>
<tr>
<td>Maintenance = 134</td>
<td>TOTAL = 613</td>
</tr>
<tr>
<td><strong>PARK ATTENDANCE, Sep 2013</strong></td>
<td>Park Total 12,459</td>
</tr>
<tr>
<td>(Percentage reflects the percentage of total visitors in each category.)</td>
<td>Day use (79%) 9,897</td>
</tr>
<tr>
<td></td>
<td>Overnight (21%) 2,562</td>
</tr>
<tr>
<td></td>
<td>NC (31%) 3,822</td>
</tr>
<tr>
<td><strong>FISCAL YEAR 2012-2013</strong></td>
<td>FISCAL YEAR 2012-2013</td>
</tr>
<tr>
<td>Park</td>
<td>Park 239,052</td>
</tr>
<tr>
<td>NC</td>
<td>NC 80,504</td>
</tr>
</tbody>
</table>

**Blood Drive**

We held another blood drive on Saturday Nov. 2, 2013 in the NC parking lot. Thanks for those who helped with the sign-up table and those who donated blood. The event was organized by Chuck Duplant.

**Training Report**

VIT Training began with Orientation on Saturday, September 14 and ended with the Creekfield Jigsaw Hike on September 28. Twelve VITs finished the classroom segment. Thanks to all the volunteers who helped.

**Mentors:**
Dawn Carr-Smith, Carl Franke, Ethan Hoover, Glen Kilgore, Barbara Keller-Willy, Mike Manley, Mike Sanderson, Marilyn Vossler, Diane Welty.

**Advance preparation:**
Belinda Dimarcello, Suzie Gann, Mary Lockwood

**Lunch and refreshments:**
Anne Shelton, Diane Welty, Suzie Gann and others

**Road Tour:**
Carl Franke, Mary Lockwood, Mike Sanderson, Ganene Steinhaus, Diane Welty, Jaci Elliott

**Program and Hike Presenters:**
Jacob Dement, Chuck Duplant, Diane Carpenter, David Heinicke, Sharon Hanzik, Mike Sanderson, Carl Franke, Glen Kilgore, Noel Duncan, Richard Taylor, Cindy Peterson, Ron Morrison, Barbara Keller-Willy, Nelda Gay, Mike Manley, and Hannah Meddaugh.
HALLOWEEN HAPPENINGS

The BBSP theme for Halloween weekend, October 25-27, was “Hairy, Scary, Slimy, Slithering Species.” Activities included a Friday night Creekfield hike and regular weekend Creekfield hikes, storytimes about Tarantulas and Bats, programs on Snakes, Owls, and Spiders, and a showing of the Halloween Classic Movie, “The Blob”. Volunteer participants included Carrie Sample, Mary Lockwood, Belinda DiMarcello, Robert Zurawski, Carl Franke, David Heinicke, Sharon Hanzik, the Watson family, Rick Dashnau and Tom Prentiss. Thanks for your participation.

HUMMINGBIRD BANDING

David Heinicke spends weekend mornings in September banding hummingbirds. He sets up a table near the NC and traps birds to weigh, measure, feed, band and release. The information then goes into a data base, and if the bird is found at a later date, it’s growth and travels can be tracked. It’s well worth the effort to attend this interesting program. Here are some photos by Dasu Baregala, who is a VIT from the September class.

THANK YOU

😊 to all of the vols who helped with VIT training in September.

😊 to Joe Southern for editing the September newsletter (Issue 9).

😊 to Nelda Gay for researching articles for the newsletter; Chuck Duplant and Rick Dashnau for sharing information with us on the daddy longlegs; and Dasu Baregala for photos of hummingbird banding.

😊 to Mary Lockwood, Glen Kilgore, Bob Kowalewski and Belinda DiMarcello for serving as officers for the organization for 2012-2013.

😊 to Mary Lockwood, Glen Kilgore, Woody Scott, Melanie Jahn, Diane Welty and Mark Sanderson for agreeing to serve as officers for the organization for 2013-2014.
Fall is here(!) and we need full coverage in the Nature Center, Gift Shop and Creekfield Hike. We can have as many as 3 members per NC shift and 3 Vits. Saturday Creekfield Hikes can use more than one leader (sometimes 3-4). If you are signed up and not needed you still get the credit. Sundays don't get too busy until the afternoon, so we need full staff from 11-5. We can get by with the minimum from 9-11.

Thanksgiving week will be busy (provided we have nice weather). We need to fill the 11 AM to 3 PM shifts first on Monday through Wednesday. The center is closed Thanksgiving Day - park is open. Friday we expect to be extremely busy so all shifts are currently listed. The Creekfield Hikes this week have a sign-up deadline so that I know whether or not to include them on the program schedule. If you would like to present a program or lead a hike that week, let me know by November 19.

Our Simple Christmas event will be held December 7 (always the first Saturday in December). I am starting to work on that. No schedule yet but you can view last year's at www.brazosbend.org. Volunteers power this event! If you see something you are interested in, let me know, or sign up once I have it on the Special Events Calendar.

DON'T LET THE HOLIDAYS SNEAK UP ON YOU and cause you to neglect your membership hours. This is the last quarter of the membership year so you will need 6 quarterly hours and have reported 48 total hours by December 31.

We CANNOT do it without VOLUNTEER POWER!

MAINTENANCE REPORT
SEPTEMBER 2013

BBSP maintenance volunteers donated 134 hours during September, 2013, in the following areas:

Wood Yard:
Prepared wood for sale

Trail Trimming and Trail Maintenance:
Cleaned up trees cut by power company around 40-Acre Lake
General trail trimming

Pest Control:
Trapped hogs
Treated Chinese tallow trees

Special Projects:
Collected seeds for reseeding projects
Worked on pocket prairie

Hognose snake
Ron Morrison, Oct., 2013

Creekfield Pocket Prairie
Akiko Noma, Oct. 2013
VOLUNTEER NIGHTS AT THE OBSERVATORY

BBSPVO members have an open invitation to visit the George Observatory any Saturday evening. There is no "special" programming, but the Observatory will make sure that you are not charged for anything. You must identify yourself. Uniform is not required.

Go the their gift shop and ask for Josh. If you are not in uniform, identify yourself as a volunteer, and he will stamp your hand so that you may view through the big scopes. Everything else is free. If a Challenger mission is in operation, we can observe.

BIRDS OF PREY PROGRAM

by David Heinicke

Imagine a falcon diving at speeds of over 150 miles per hour as it chases a trainer’s lure, hawks on the wing soaring mere inches above your head, an Andean Condor with a wingspan of over 10 feet! Visitors saw all this and much more on Saturday, November 2 at a Birds of Prey program presented by Master Falconer and Environmental Educator Steve Hoddy, founder of EarthQuest. “Our primary mission is to educate the public about our environment and wildlife. We delight in bringing a greater understanding of nature to park visitors of all ages,” says Hoddy. Throughout his career Steve Hoddy has traveled around the country showing these magnificent and majestic birds to school groups, renaissance fairs, scout groups and even made appearances with his birds on the Tonight Show with Jay Leno and the NBC Today program. In addition to educating and entertaining the public, Steve has trained animals for television and movie appearances.

The program was held in the lawn area in front of the park’s Nature Center, where visitors brought lawn chairs, blankets or just sat in the grass. The program was free of charge with regular park admission. Donations for EarthQuest were accepted.

This program will be back by popular demand on Saturday, November 23, at 2:30 PM.
October 20, 2013. After enduring two postponements of the 18th Annual Brazos Bend Butterfly Count, we were finally treated to a gorgeous day with sunny skies, mild temperatures and little wind. Flowers were in bloom throughout the park thanks to recent rains (though much of the butterfly-favorite Frostweed was past its prime), and butterflies were plentiful.

The 24 observers included Brazos Bend State Park Volunteers, Master Naturalists and other enthusiasts, both expert and novice, including a mother with 2 children returning from last year. We were happy to see several who were joining the count for the first time.

We divided into 7 parties and searched varied areas within and near the park. By lunch time 39 species had been recorded. Several observers checked other areas in the afternoon, finding 6 additional species. Gulf Fritillary was most abundant by far, followed by large numbers of Little Yellow and Carolina Satyr. Most notable were two individual butterflies. A Great Southern White had not been reported since 2006, when the count was in June. A gorgeous Great Purple Hairstreak also appeared. We have never seen more than one on a count, with the most recent accounts in 2012 and 2001. None of our “usual” species was missing in action.

<table>
<thead>
<tr>
<th>Species</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Swallowtail</td>
<td>6</td>
</tr>
<tr>
<td>Giant Swallowtail</td>
<td>20</td>
</tr>
<tr>
<td>Great Southern White</td>
<td>3</td>
</tr>
<tr>
<td>Orange Sulphur</td>
<td>1</td>
</tr>
<tr>
<td>Southern Dogface</td>
<td>5</td>
</tr>
<tr>
<td>Cloudless Sulphur</td>
<td>4</td>
</tr>
<tr>
<td>Little Yellow</td>
<td>1</td>
</tr>
<tr>
<td>Sleepy Orange</td>
<td>15</td>
</tr>
<tr>
<td>Great Purple Hairstreak</td>
<td>166</td>
</tr>
<tr>
<td>Gray Hairstreak</td>
<td>14</td>
</tr>
<tr>
<td>Red-banded Hairstreak</td>
<td>7</td>
</tr>
<tr>
<td>Dusky-blue Groundstreak</td>
<td>9</td>
</tr>
<tr>
<td>Hairstreak species</td>
<td>36</td>
</tr>
<tr>
<td>Gulf Fritillary</td>
<td>11</td>
</tr>
<tr>
<td>Variegated Fritillary</td>
<td>2</td>
</tr>
<tr>
<td>Phaon Crescent</td>
<td>34</td>
</tr>
<tr>
<td>Pearl Crescent</td>
<td>37</td>
</tr>
<tr>
<td>Painted Lady</td>
<td>9</td>
</tr>
<tr>
<td>Red Admiral</td>
<td>19</td>
</tr>
<tr>
<td>Common Buckeye</td>
<td>13</td>
</tr>
<tr>
<td>Viceroy</td>
<td>87</td>
</tr>
<tr>
<td>Goatweed Leafwing</td>
<td>3</td>
</tr>
<tr>
<td>Hackberry Emperor</td>
<td>1</td>
</tr>
<tr>
<td>Tawny Emperor</td>
<td>3</td>
</tr>
<tr>
<td>Emperor species</td>
<td>1</td>
</tr>
<tr>
<td>Gemmed Satyr</td>
<td>11</td>
</tr>
<tr>
<td>Carolina Satyr</td>
<td>18</td>
</tr>
<tr>
<td>Satyr Species</td>
<td>2</td>
</tr>
<tr>
<td>Monarch</td>
<td>18</td>
</tr>
<tr>
<td>Queen</td>
<td>2</td>
</tr>
<tr>
<td>White-striped Longtail</td>
<td>25</td>
</tr>
<tr>
<td>Long-tailed Skipper</td>
<td>2</td>
</tr>
<tr>
<td>Horaces Duskywing</td>
<td>55</td>
</tr>
<tr>
<td>Common Checkered-skipper</td>
<td>14</td>
</tr>
<tr>
<td>Tropical Checkered-skipper</td>
<td></td>
</tr>
</tbody>
</table>

Total: 1934 individuals / 45 species

Observers were Jerry Carpenter, Chris Carey, Susan Conaty, Chuck Duplant, Jerry Eppner, Julia Geisler, Bill Godley, David Heinicke, Linda Heinicke, Rich Jespersen, Sandy Jespersen, Julie Lock, Patricia Lock, Cassandra Lock, Gary Moore, Kathy Moore, Akiko Noma, Hiromichi Noma, John Schneider, Robert Schwartz, James L. Smith, Malgorzata Suarez, Tito Suarez and Pam Tatge.

The next count will be held on October 5, 2014.
DADDY LONGLEGS CONTROVERSY?
IN THE NATURE CENTER?

Thanks to Rick Dashnau and Chuck Duplant for bringing this research to our attention.

Volunteers enjoy many topics of discussion and education when approached by visitors with questions and opinions about our world of NATURE. To settle one matter, here are two sources with information about the innocence or guilt of Daddy Longlegs as being very venomous spiders. The best explanations we can offer as to whether or not Daddy Longlegs are venomous are direct quotes from two sources below:

Source: UC IPM Online, Agriculture and Natural Resources, Univ. of California

Most folks who retell this tale have no idea that they are referring to two completely separate groups of animals: "daddy-longlegs" and "daddy-longlegs spiders". In the animal class Arachnida, there are several lower level divisions called Orders. Scorpions are in the Order Scorpiones, spiders are in the Order Araneae, ticks and mites are in the Order Acari.

Daddy-longlegs (Opiliones) - these arachnids make their living by eating decomposing vegetative and animal matter although are opportunist predators if they can get away with it. They do not have venom glands, fangs or any other mechanism for chemically subduing their food. Therefore, they do not have poison and, by the powers of logic, cannot be poisonous from venom. Some have defensive secretions that might be poisonous to small animals if ingested. So, for these daddy-long-legs, the tale is clearly false.

What about their fangs being too short to penetrate human skin? Pholcids do indeed have short fangs, which in arachnological terms is called "uncate" because they have a secondary tooth which meets the fang like the way the two grabbing parts of a pair of tongs come together.

For true daddy-long-legs, the opilionids, the myth is certainly false, and for the daddy-long-legs spiders it is certainly not based on known facts.

Cellar spiders
Another creature often called daddy longlegs is a spider in the family Pholcidae. The common name for these creatures used to be cellar spiders, but arachnologists have started to call them "daddy longlegs spiders" because of the common confusion.

Venom myth busted: According to urban legend, daddy longlegs are the most venomous spiders in the world, but their fangs are too weak to penetrate human skin. However, this myth was busted on the Discovery Channel show "Mythbusters." A daddy longlegs spider was coaxed into biting the arm of the show's co-host, Adam Savage. He reported nothing more than a very mild burning sensation from the spider's venom that lasted just a few seconds.

The myth may have come about because the daddy longlegs spider can kill the dangerous Australian redback spider, but that is done through its ingenious web-catching technique, not its venom.

USE OF ATV/UTV VEHICLES AT BBSP

BBSP Volunteers have received a memo regarding operational and safety requirements for using department owned UTVs and ATVs. Judging by the definitions below, the vehicles used most by volunteers are UTVs (not ATVs, as we usually refer to them).

UTV - Utility Type vehicle, a Recreational Off-Highway Vehicle (ROV), which is generally used for maintenance, hunting or recreation.

ATV - All-Terrain vehicle, a vehicle that has a saddle seat, three or more tires and is designed for off-highway use.

Refer to Chapter 10 of the TPWD Safety Program Manual, which can be found on the BBSPVO website in the Members section. Also comply with the following guidelines:

Department UTV:
• Review of the operational vehicle safety manual for the vehicle.
• Hold a valid driver’s license.
• Equipped with a triangular orange flag on top of an eight-foot pole attached to the back of the vehicle.
• Slow moving vehicle emblem on the rear of the vehicle.
• Headlights and taillights that are illuminated at all times (if equipped).
• Usage of seatbelts (if equipped).
• Operation of the vehicle does not exceed a distance of 25 miles from the point of origin to the destination.

Department ATV:
• Review of the operational vehicle safety manual for the vehicle.
• Hold a valid driver’s license.
• Equipped with a triangular orange flag on top of an eight-foot pole attached to the back of the vehicle.
• Headlights and taillights that are illuminated at all times (if equipped).
• Complete an approved ATV operator safety course.
• Usage of required safety equipment (helmet, long pants, long sleeve shirt, protective footwear, gloves and eye protection).
• Operation of the vehicle does not exceed a distance of 25 miles from the point of origin to the destination.

Additional note: As per Lead Ranger Richard Taylor - The flags only need be upright when you are on the road. When you are on the trails you may find some way to bend it and secure it to the vehicle so that it would not be snapped off by trees.
The 2012-2015 business plan adopted by the Volunteer Organization in January 2012 specified one of its four strategic goals to “develop the leading outdoor/nature education program in Texas.” Our intent is to expand the scope and depth of many programs that staff and volunteers already offer, and to more fully engage visitors, students, and teachers in nature and conservation education. We envision elaborating BBSP’s role as a collaborative site for hands-on science education.

While the planned Educational Environmental Center is the key to fully realizing our potential to expand the range of programs, we commissioned the Program Task Force to move ahead with new programs where feasible. Information below describes what has been accomplished to date.

1. Water study

The task force designed a water study protocol for long-term monitoring of water quality in BBSP’s lakes and rivers. Current water bodies being monitored include Elm Lake, 40-Acre Lake, Pilant Lake, Creekfield Lake, and New Horseshoe Lake. Monthly testing is conducted for pH, temperature, nitrates, phosphates, and dissolved oxygen. We plan to expand the study to include Big Creek, which as a water body with active inflow/outflow, should provide interesting data. Volunteers interested in participating in the water study may contact Hannah Meddaugh at meddaugh@bcm.edu.

Data is recorded in a web-based database Google spreadsheet/form that will enable sharing data with other researchers and participating schools. While the basis of the study will be the monthly samples collected by volunteers, the protocols will enable middle and high school science classes to participate in collecting and analyzing samples and in monitoring trends.

Participating students will gain experience with the scientific method, fieldwork, chemistry, computer databases and mathematics. In addition, the study enables teachers to link hands-on fieldwork with broader lessons on the issues of water quality and supply in Texas and the world in general. We have identified twelve middle, junior, and high schools within 20 miles of BBSP to be our first group to invite for participation during the 2013-2014 school year. Initially, the water study involves analyzing the chemical characteristics and quality of water samples. Eventually, we expect to add aquatic biology to expand the range of school classes to benefit from a hands-on science endeavor at BBSP.

2. Weather Observatory

On Saturday, May 4, the Volunteer Organization-funded weather observatory went live. The Davis Instruments Vantage Pro2 Plus station is solar-powered and fully automated with wireless data transmission. The sensor suite is located along the fire break in the prairie across the road from HQ and transmits data to a receiver in HQ every five minutes, uploading data online for a variety of weather parameters including temperature, dewpoint, wind speed and direction, humidity, barometric pressure, rainfall, solar radiation (watts/m²), UV index.

The data is accessible online via the BBSPVO website, park website, wunderground.com (search station name: KTXNEEDV17 or Damon, TX forecast), and weatherlink.com (www.weatherlink.com/user/bbspvo). Data is available for current, forecast and historical time periods which may be downloaded from wunderground for any time period required. This station fills a significant need for the general public to obtain accurate weather information about the park and provides park management and scientists conducting research in the park with valuable weather data, both real-time and longitudinal.
The weather observatory provides the basis for developing a variety of programs for visitors and students, as well as useful supporting data for the water study and for other research at BBSP. As with the water study, volunteers and visiting teachers will use weather observation as a basis for broader discussions of weather and climate issues and relationship to the earth’s geology and biology. Students will benefit from exposure to elements of physics, chemistry, environmental science, and mathematics.

3. On-line Research database
BBSP has served as a research and data collection site for numerous scientific studies over the years. Using TPWD’s scientific permit list as a basis, we have created a listing of research projects conducted at BBSP and obtained project summaries from the project leaders when possible. This information is available on the BBSP volunteer website, currently listed and uploaded. The new online database is not the basis for any program we deliver, as with the water study and weather observatory, but it serves an important role in publicizing BBSP as a valuable site for scientific research. Cataloging past research and making it more accessible to the scientific community is valuable in itself, and we hope that it will also create a broader constituency for the park among the scientific community that will contribute to supporting conservation of BBSP’s unique ecosystem.

4. USA - National Phenology Network
USA - NPN is a non-profit, scientific research organization that promotes broad understanding of plant and animal phenology (life cycle changes) and their relationship to environmental change. NPN has developed a program of standardized “status monitoring” for over 800 specified plants and animals now used by a variety of organizations and individuals across the country. The data is collected and shared through an online database known as “Nature’s Notebook.”

NPN was set up by the U.S. Geological Survey and the National Science Foundation in 2007. These two organizations, with many others, support NPN’s efforts. Both organizations and individuals are involved in monitoring and reporting status data from around the country. In our setting, the program works by designating specific trails, each containing 3 to 10 different species of various plants and animals. Observers regularly visit the sites and record, at specific intervals, the observed life cycle status for each specimen. A key objective of the USA-NPN program is to encourage participation by participants across the country, with a program designed for all ages and abilities. NPN also provides substantial curriculum support materials, so that teachers can link the activity to classroom lessons before and after their visits. Nature’s Notebook also offers an easy way to enrich visits by school groups and to provide a more interactive, hands-on experience.

With David’s help, we have created the first “Phenology walk” around Creekfield Lake and will soon be producing information for day visitors and local schools. We encourage everyone to learn about and participate in Nature’s Notebook as it develops here at BBSP.

**CALENDAR OF EVENTS**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>November 22</td>
<td>Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building</td>
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<tr>
<td>December 7</td>
<td>Photo Walk: Landscape Photography, 3:00 PM, Nature Center</td>
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<tr>
<td></td>
<td>Bird Blizzard at Sunset, 5:00 PM, 40-Acre Lake Observation Tower</td>
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<tr>
<td>December 6</td>
<td>Bird Watching Hike, 8:00 AM, 40-Acre Lake restroom building</td>
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<tr>
<td>December 7</td>
<td>Landscape photography Photo-walk, 3:00 PM, meet at Nature Center</td>
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<td></td>
<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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<tr>
<td></td>
<td>Budget and Executive Meetings, 3:00 PM</td>
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<tr>
<td></td>
<td>Regular Business Meeting, 5:30 PM (Supper, 5:00 PM)</td>
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</tbody>
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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
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
Members-at-Large: Mike Sanderson, Diane Welty
Comptroller: Nancy Lynn Jones

NEWSLETTER TEAM

Editor: Anna Dell Williamson
Assistant Editor: Joe Southern
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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