Fall Gallery Night at BRIT

Join us on Saturday, September 10, from 4 p.m. – 9 p.m. for Gallery Night at BRIT featuring 'The Nature of Things – Daphne Prairie' a new show by well-known Texas artist Deborah Paris. Paris’ gorgeous paintings give the public a rare glimpse of one of the last remnants of tall-grass prairie in east Texas, Daphne Prairie. The artist will give a gallery talk at 6 p.m. and the owner of Daphne Prairie, B.F. Hicks, will also be in attendance.

Also joining BRIT for Gallery Night will be Wild Acre Brewery, a rising star of the local craft beer movement. Wild Acre will be serving a variety of their tasty brews from 6 p.m. – 8 p.m. There is no cost to attend but memberships will be available for purchase.

For more information about this special night, please click here. Members who bring their membership card will receive a FREE BRIT wine glass.

Come Learn with Us!

Gary and Sue Price, owners of the 77 Ranch in Navarro County, will kick off BRIT’s Fall Brown Bag series on Tuesday, September 6, from noon – 1 p.m. in the BRIT Commons with their talk ‘Conservation Ranching and Land Stewardship’. The Price's have spent the last 40 years making their 2500-acre ranch into an award-winning cattle operation focusing on conservation practices that not only increase production but also improve water quality and wildlife habitat and protect natural resources. Join us and learn about their successful approach to conservation ranching and land stewardship. For more information, please click here.

Ever Wonder What it Would Be Like to Work as a Scientist?

To build a lab, to help shape the next generation of scientists, to navigate the thorny halls of academia? If so, then join us for the BRIT Reads Book Club on Monday, September 19 from noon – 1 p.m. as we discuss Lab Girl by Hope Jahren. This New York Times bestseller is “a book about work, love, and the mountains that can be moved when those two things come together.” It's also an examination and celebration of the power of friendship. Bring your lunch and bring a friend and join us for an hour of spirited conversation. For more information, please click here.
International Award of Excellence in Conservation
Honoring Carter P. Smith, Executive Director of Texas Parks and Wildlife Department
Gala and Award Dinner
Thursday Evening, October 20, 2016
Worthington Renaissance Hotel
REGISTER NOW
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For more information, contact Sara Richardson at 817.332.2748.

Bloom with Bella the Begonia
The popular Bella Book and Nature Club begins in September. Bella welcomes children and their adult co-explorers on either the first Tuesday OR the first Wednesday of each month during the 2016-2017 school year. September begins the fall books and activities of Bella’s Seasons of Stories, Seasons of Science. In the grassy areas of BRIT’s braided pathways, co-explorers will discover the Poaceae (grass) family and why it is the most important and influential plant family on the planet! In the Tall Grass by Denise Fleming introduces a grassy environment and all the creatures that call it home.

BRIT’s early childhood programming is expanding its outreach to the greater community of educators and childcare providers. Bella’s Seasons of Stories, Seasons of Science curriculum and teaching strategies are leading the way in providing quality professional development to public and private schools and child development centers. Teachers are given the confidence and skills to guide our youngest learners in their exploration of the natural world. Bella helps both teachers and their students grow their science thinking and science process skills.

First Saturday Story Time: Saturday, September 3 (10:30 a.m. - 11:30 a.m.)
Free
Bella’s Book & Nature Club: Tuesday, September 6 & Wednesday, September 7 (10:30 a.m. - noon) $10 per family/Free to Members. Pre-registration is required at this link.
For more information, please contact Kimberly Whitlock at 817.546.1958. Follow and like Bella’s Facebook page!

Volunteers Needed for a New Outdoor Project
Have you been wanting to volunteer outside at BRIT? Are you curious about the research plots on the BRIT campus? Join us and learn more about BRIT’s collaborative project with the General Services Administration (GSA).

BRIT/GSA Volunteer Kick-Off
Tuesday, September 20, 9:30 a.m.
The Commons
BRIT has partnered with GSA to study high performance landscapes that increase habitats for bees and other pollinators, reduce water usage, and improve the ecosystem. Through this venture, 20 research plots
have been planted with a combination of native drought-tolerant plants. A team will monitor their water usage, the effects on the ecosystem, and habits of bees and other pollinators for a two-year period. The goal is to help make landscaping choices that are water-smart, eco-friendly, cost effective, and attractive to the general public.

For questions, please contact Julie Donovan, Director of Volunteers and Public Engagement, and to RSVP for the kick-off, please contact Hannah Kuhns, Visitor Services Coordinator.

High School Computer Science Students Help BRIT Analyze Herbarium Cabinets

This summer BRIT teamed up with four high school students from Trinity Valley School to investigate the use of computer technology to analyze the capacity of the cabinets in the BRIT herbarium. Students Grace Beasley, Jacob Haydel, Kevin James, and Ashia White joined BRIT’s Jason Best to create software that can analyze an image of an open cabinet to determine how much space is occupied by specimens and how much space is available for growth. This process will be used for all cabinets in the herbarium to help BRIT develop a plan for strategic growth of the herbarium as we continue to accession new specimens and acquire orphan collections. The students learned how to use computer vision techniques to analyze images to extract quantitative data from an image about the fullness of a cabinet and also created a graphical interface to visualize the data once it has been collected. For further details of the project and the students’ work, please see the blog article at http://blogs.brit.org.

BRIT Education Ends the Summer Strong

BRIT Education had a very successful summer. With Bella happenings, Camp BRIT, E-STEM Educator Boot Camp, and hosting the Texas Wildlife Association and Texas Instruments trainings, our building was filled with learners of all ages experiencing the BRIT mission. We ended our summer programs in August with several custom professional developments for teachers in area districts. Aquatic science, advanced placement environmental science, and environmental systems teachers came to BRIT and explored our bioswales, discussed water conservation, and focused on project-based learning to create student-centered experiences for the upcoming year. We wish all students, teachers, and parents a great school year!

BRIT welcomes new leadership with the Green Revolution Environmental Youth Leadership program for middle and high school youth. Mr. Reginald Robinson steps in to lead the program in its fifth year to its next level of success in ensuring GROWTH for all who join the Green Revolution movement.

How would you describe your process of getting better? Is it a daily ritual – instinctual as breathing? Is it at the bottom of an ever expanding todo list? Perhaps somewhere in between? Stephen Covey, in his seminal work, The 7 Habits of Highly Effective People, reminds us that when we, “renew [our]selves, we create growth and change in our life.” The kind of growth that keeps us fresh and increases our capacity to produce and handle the challenges around us.

Green Revolution isn’t a program of the month or a quick fix, but a philosophy that represents the process of personal and interpersonal GROWTH for both immediate and lasting impact.

Growing GROWTH.

from the desk of Mr. Reginald Robinson
Obsessed with Growth

Image: Growing Young Leaders like, Petro Juma, a recent Green Revolution graduate
Texas is by all accounts big. With over 268,000 square miles of land and 27.5 million people, the state is bigger than many entire nations around the world. And at almost 800 miles wide and 800 miles tall, Texas covers 10 climatic zones with 11 recognized vegetational areas. These distinct areas include high plains, pineywoods, Gulf marshes and post oak savanna, among others. According to the Native Plant Society of Texas, there are nearly 5000 native species of plants found here as well as nearly 2000 cultivated, naturalized and invasive plants to contend with.

Center for Plant Conservation (CPC) participating institutions in Texas are working together with local, state and federal authorities and land owners to come up with a state-wide strategy for plant conservation. This last April, CPC and partner the Botanical Research Institute of Texas convened a CPC Texas planning meeting in Fort Worth to outline the beginnings of this strategy. [Read more](#).

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**Hold Your Meeting at BRIT!**

Looking for a place to have a meeting, lecture, party, or presentation? With a variety of spaces available, BRIT is sure to have the perfect space for you. The Exhibit Hall and Commons are ideal event spaces with size flexibility and an open feel. As the days start to cool down, our Oak Terrace offers an excellent option for smaller, outdoor gatherings. Our Atrium is a unique space for your event. With stunning architecture and floor to ceiling windows, you will surely please your guests.

BRIT would love to open its doors to you! Patron Members receive a rental discount. To reserve your space or to have any questions answered, please contact [Casey Carter](mailto:), Rental and Meeting Coordinator at 817.332.7750.

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**Relighting the TORCH**

On August 13, BRIT hosted 30 botanists and curators representing herbarium collections across the states of Texas and Oklahoma for the 9th Annual Meeting of the Texas and Oklahoma Regional Consortium of Herbaria. This organization exists as a means to advocate and organize herbaria in these two states, and to function as a regional consortium promoting data sharing and plant taxonomic and collections-based research, outreach and education. Collectively, the 60+ herbaria in our region manage more than 3.5 million scientific specimens that document our knowledge about plant life in the southern United States and worldwide.

Presentations in support of community building and the digitization of scientific specimens were offered by Zack Murrell (Curator of the herbarium at Appalachian State University), Joanna McCaffrey (Biodiversity Informatics Manager, iDigBio), Jason Best (Director of Biodiversity Informatics at BRIT), George Yatskievych (Curator of the Herbarium at the University of Texas, Austin), and Marcia Revelez (Collections Manager at Angelo State University). TORCH anticipates further collaboration to seek funding for digitizing a significant portion of our specimen holdings, which will serve as another means of preserving these priceless collections, as well as increasing their accessibility to scientists asking big questions about our natural world.
Plant Education: Who's Minding the Gap?

July’s brown bag presentation by Pat Harrison, Senior VP Education, addressed the growing educational trend resulting in traditional botany being dropped from the curriculum in most major universities and from the educational standards for K-12 schools in Texas. The conclusion was that plant knowledge is still vital to educate the workforce that is needed to fill positions in the ever-increasing natural resource fields. Therefore, organizations like BRIT must step up to fill the gaps in botanical education and training. Participants attending the brown bag were surveyed with the questions, “Where are the gaps in plant education?” and “How can we fill the gaps?”

Responses can be found at [here](#).

So how are we responding to the survey? BRIT and the Fort Worth Nature Center are teaming up to offer a series of learning opportunities that include many of the topics above. Be watching for the announcement coming up in the next Leaflet!

Seed Banking at the Lady Bird Johnson Wildflower Center

BRIT Researchers Peter Fritsch, Kim Taylor, and Alyssa Young learned about seed banking during a visit to the Lady Bird Johnson Wildflower Center. The plant conservation staff graciously gave a tour of their seed banking facilities, explained their collection procedures, and offered advice garnered throughout their years of experience. As members of the Center for Plant Conservation (CPC), BRIT and the Lady Bird Johnson Wildflower Center are dedicated to protecting rare plants throughout Texas and will be working together collaboratively to do so. Seed banking allows the long-term storage of genetic diversity; this is particularly useful for rare plant species which are at risk of extinction in their natural habitats.

The Hunt for Red Mangrove

The red mangrove – Rhizophora mangle, is a plant of critical importance to the world’s economy. One third of all commercially caught and sold fish species use the mangrove’s stilt roots as a nursery habitat for their young. It brings massive productivity to some of the world’s most arid margins, and is commonly found along the coast, yet there are some populations of red mangrove that instead occur inland, in fresh water rivers of eastern Mexico. How these mangroves arrived and survived is a mystery, but in fresh water they are littered with epiphytes – air-plants that sit on their branches and take nutrients and water from the humid air. Even orchids can be found in the boughs of these trees that line the river-banks. Their bark is used to tan the leather made from the skins of the local reptiles, and iguanas are reported to eat their seedlings. In July, BRIT Biodiversity Explorer Dr. Sula Vanderplank went to investigate, with a team led by Dr. Exequiel Ezcurra from the University of California’s Institute for Mexico and the United States. The team took DNA samples, herbarium specimens and salinity readings throughout the Yucatan peninsula, and look forward to analyzing the evolutionary origin of these fascinating inland mangroves.

Southeast Asia International Meeting

Peter Fritsch attended the tenth Flora Malesiana meeting held in Edinburgh, Scotland, July 11-15. This international meeting, held every three years, focuses on the latest scientific discoveries on plants and ecosystems of the islands of Southeast Asia, which constitute one of the hottest of biodiversity hotspots on Earth. Peter delivered a paper on new species of blueberries
(Vaccinium) discovered on his expeditions to the Philippines during the previous two years. He also remained for a week after the meeting to study collections in the Royal Botanic Garden Edinburgh herbarium, one of the most important repositories of East Asian plants in the world, where he worked with Dr. George Argent, a world-renowned expert on the species of blueberries and rhododendrons in Asia.

Photo Contest for a Free Membership

So many brilliant photos have been submitted that it was really difficult to pick just one. That said, this month’s photo was submitted by Heather Bass, for its portrayal of a “Monarch butterfly (Danaus plexippus) on a Greg’s Mistflower (Conoclinium greggii) in one of our bioswales, right here on the BRIT landscape.” Heather Bass.

Thank you, Heather for use allowing us to use this great photo in this issue of our Leaflet. It’s not too late to submit your beautiful works of art to membership@brit.org for our October issue!

Documenting Plant Diversity in the Blue Ridge Mountains

Since 2013, BRIT has invested in a program to document plant biodiversity in the Southern Appalachians. In the most recent project of this effort, BRIT research associates Devin Rodgers and Chris Mausert-Mooney, led by BRIT botanical explorer Dwayne Estes, are beginning a study that will provide critical vegetation data for the beginning of a long-term monitoring effort seeking to understand changes in stream health as climate change, invasive species, and acid rain continue to affect ecology of high-elevation ecosystems in the Blue Ridge Mountains. This collaboration with the Tennessee Wildlife Resources Agency, Middle Tennessee State University, and East Tennessee State University is a pilot study monitoring high-quality brook trout streams and emphasizes the important connection between vegetation and broader ecosystem conservation. The project will study four watersheds in east Tennessee through mapping of riparian vegetation in each watershed, documentation of rare plants in riparian areas, and plot study on selected high-quality reaches of each stream.

Botany 2016 - Savannah Smiles

Several BRIT staff were all smiles this year at the Botany 2016 conference held in Savannah, GA. When not giving talks or poster presentations on recent research, BRIT attendees were networking and inviting new and old colleagues alike to visit the BRIT Press vendor table in the exhibit hall to discuss potential book projects or journal submissions. BRIT sent a large contingent to this year’s conference to meet with organizers, taking notes and pitching ideas as they plan next year’s conference at the Fort Worth Convention Center.

BRIT helped choose the theme and logo for Botany 2017, submitted ideas for plenary lectures and symposia, and will be organizing field trips and a service project. The conference is held annually by the Botanical Society of America along with several other botanical organizations such as the American Society for Plant Taxonomy, the American Fern Society, and the Society for Herbarium Curators.
A New Species Discovery in the Philippines

The Philippines consists of about 7,641 islands with tremendous levels of biodiversity. It is the fastest growing nation in Southeast Asia, with 100 million people living on land area that is about the same size as Arizona. Most of the original tropical forests in the Philippines are now gone and those remaining are under numerous threats, making the Philippines one of the hottest of biodiversity hotspots in the world. Fortunately steps are being taken to save the remaining natural areas of the island. One of these areas is Mount Apo in the large southern island of Mindanao and the highest point in the Philippines at 9692 feet above sea level, now a Natural Park and UNESCO World Heritage Site. In the spring of 2014 Peter Fritsch and several colleagues conducted a botanical expedition to Mount Apo, resulting in several new species discoveries. One of these has just been published in the journal *Phytotaxa*. This species, a wintergreen in the heath family, was completely unknown to science despite its occurrence right along a roadside—it just needed someone with a particular focus on this group in order to collect and study it. This finding highlights that fact that our knowledge of even basic species numbers and abundance in most areas of the world, but especially biodiversity hotspots such as the Philippines, is woefully inadequate, and much more field and laboratory work needs to be done for thoroughly documenting life on our planet.

![Image above: Diplycosia platyphylla, a new species from the Philippines](image)

BRIT Partners with Tarleton State University to Study Rare Plants on Roadsides

BRIT will be partnering with Tarleton State University on a grant from the Texas Department of Transportation (TxDOT) to build habitat maps for 57 rare species in central Texas. BRIT will work to better understand the habitat needs and preferences of these rare species by examining herbarium specimens and the scientific literature. This information will all be mapped to show areas where each of the rare species is most likely to occur. TxDOT will use these maps to improve their ability to protect rare species which grow along their roadways. For several of these rare species, roadides represent a significant portion of the known populations. Conserving them in these locations is critical to their survival.

![Image above: Campanula reverchonii (Basin bellflower), one of the 57 rare species to be studied.](image)

Instagram Snapshot

A herbarium is a museum of preserved plants that are used for botanical research. BRIT’s herbarium houses more than 1,000,000 plant specimens from all over the world, which makes us one of the largest in the United States. This specimen is a *Thelesperma filifolium* var. *filifolium*, collected from Tarrant County in 1912.

Follow us at brit_org

BRIT Membership

We appreciate and thank you for your interest in BRIT and ask that you partner with us by becoming a member. To show you our appreciation we would like to share some exciting new benefits you’ll receive:

- BRIT joined the American Horticultural Society (AHS). As a BRIT member you’ll automatically be part of their Reciprocal Admissions Program (RAP), which offers free admission and/or additional benefits at 300 gardens throughout North America and the Cayman Islands. To learn more, visit ahs.org, an online directory listing all the participating gardens for you to enjoy.
- BRIT also recently joined the American Public Gardens Association (APGA). With the added bonus of the APGA membership, you will receive twelve (12) free issues, digital or by mail, of the Better Homes and Gardens magazine.

These new benefits are in addition to discounts here at BRIT on our programs, merchandise, and services, and also shopping discounts with these local area reciprocal partners: Calloway's Nursery, Marshall Grain Co., Redenta's Garden, The Tree Place, and Mingos Nursery & Garden Center.
Membership is Just One Way to Support the Work We Do at BRIT

- You could volunteer at the coolest place in town all summer long to loan your skills, and learn at the same time!
- Consider joining BRIT’s planned giving program, the Shinners Society by remembering BRIT in your estate planning. No matter how large or small, any amount to BRIT in your estate plans will leave a lasting legacy for future generations.
- Maybe you own your own company and need ways to show your appreciation to your staff? Become a Corporate BRIT Member, which allows you to give your staff annual BRIT memberships, while you stay connected to your local community.
- Become a Reciprocal Membership Partner by providing BRIT members discounts at your retail business or by providing gift in kinds of goods or services to BRIT.

For additional information on any of these membership programs, please contact our Director of Membership and Grants Coordinator, Tammie Crole at 817.332.7518.

Youth Range Workshop

Just imagine trying to keep up with 25 energetic, enthusiastic, inquisitive high school students for a week in the middle of a hot, dry summer in the semi-arid country in central Texas. Well, BRIT Resident Research Associate Dan Caudle accepted that challenge even though it had been 35 years since the last time he did it! He served as a workshop director and instructor for the 82nd Texas Youth Range Workshop held at the Texas Tech Center in Junction, TX. Students came from across the state for a week of field training including instruction on native vegetation, soil, water, wildlife habitat, livestock grazing management, prescribed burning, and stewardship of natural resources. Public speaking, personal development, and team building were also an integral part of the program. Students left armed with skills to become the leaders of the next generation of Texas land stewards.

Herbarium Curatorial Internships at BRIT

Managing 1.02 million scientific specimens is a hefty task, but one that is made possible with the assistance of our rather amazing community of volunteers and interns. This summer, the BRIT herbarium had two undergraduate students each completing a Herbarium Curatorial Internship: Hanna Liebermann, a Biology major at Hendrix College in Arkansas, and Lorena Cisneros, an Environmental Studies major at Texas A&M University. Both young women were exposed to all aspects of herbarium curation, from the collection of plant specimens in the field to their eventual digitization and filing into herbarium cabinets, and their subsequent care and application of annotations. The goal was for them to leave the internship with a better understanding of the requirements of a large research collection that is accessed by an international community, and to be trained in the skills critical to working in any field of study directly involving botany.

Each Herbarium Curatorial Intern specialized in two projects beyond their basic training in herbarium techniques. Hanna took on a curatorial project involving the BRIT bryophyte (moss) collection with BRIT Research Associate Charles Gardener, and also worked with BRIT botanist Kim Taylor in her work with rare plant species in North Central Texas. Lorena took on a curatorial project with specimens from the Philippine Plant Inventory and prepared for and facilitated the 9th annual meeting of the Texas Oklahoma Regional Consortium of Herbaria, with BRIT Herbarium Collections Manager, Tiana Rehman. Scientific vouchers collected by both Hanna and Lorena are being deposited in the BRIT herbarium. These young women are a credit to their universities and their families; it was a privilege for us to participate in their education and we look forward to learning of their many future successes.

SEPTEMBER

3rd - First Saturday Story Time; Teach Tank; public tour; plant ID
6th - Bella Book & Nature Club; Brown Bag
7th - Bella Book & Nature Club
10th - Fall Gallery Night; Rain Barrel Pickup (9-noon)
19th - BRIT Reads Book Club
20th - Teacher Tuesday
Every Thursday - BRIT tours at 1:30 p.m.

OCTOBER

1st - First Saturday Story Time; Teach Tank; public tour; plant ID
4th - Bella Book & Nature Club; Brown Bag
5th - Bella Book & Nature Club
17th - BRIT Reads Book Club
18th - Teacher Tuesday
20th - International Award of Excellence in Conservation Gala
Every Thursday - BRIT tours at 1:30 p.m.

Additional information can be found at brit.org.