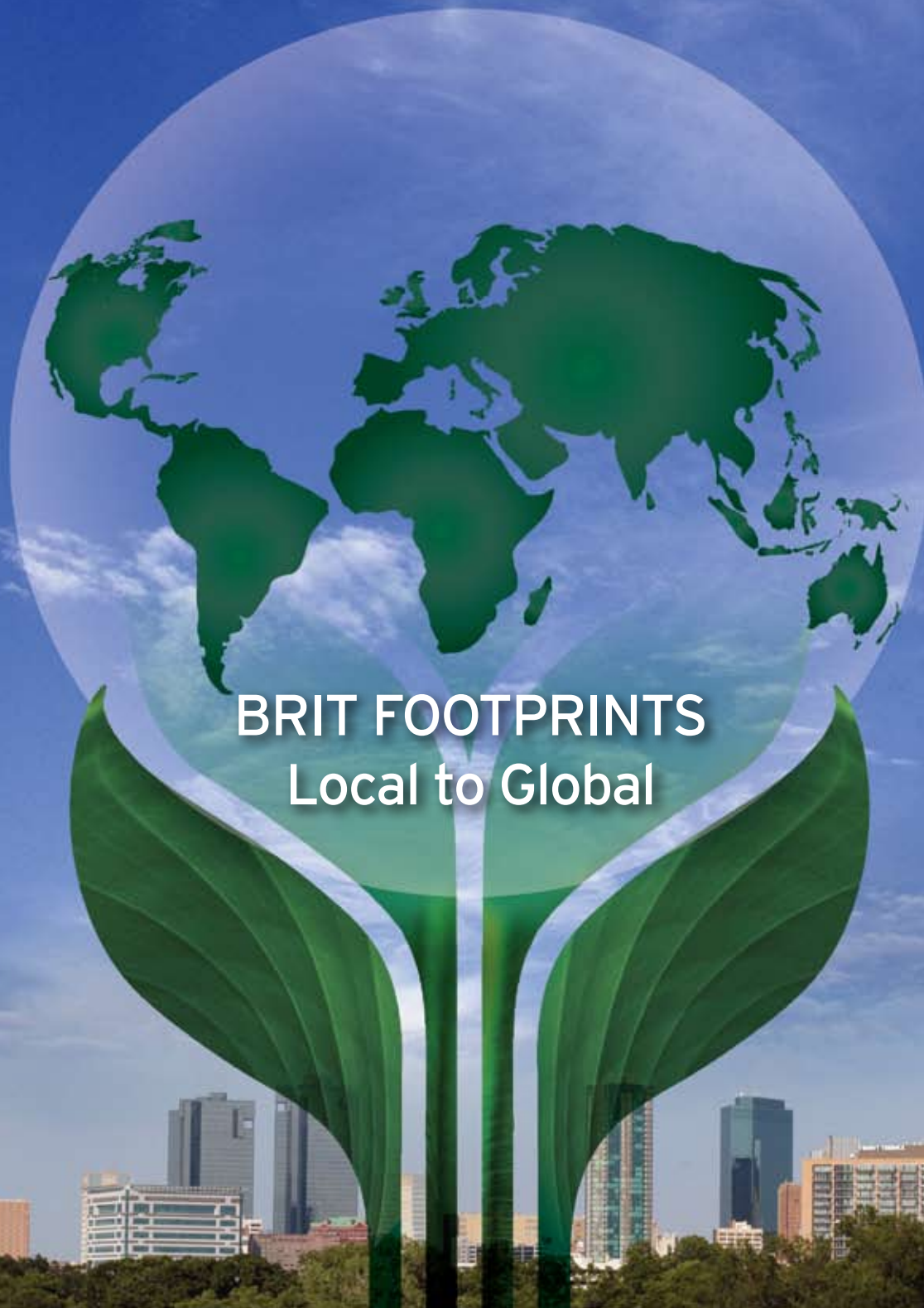




IRIDOS

A PUBLICATION OF THE BOTANICAL RESEARCH INSTITUTE OF TEXAS
VOLUME 19, NO. 1, 2008



BRIT FOOTPRINTS
Local to Global

The Best BRIT Year Ever!



Sy Sohmer

2007 was the best year ever in the history of this organization. The teamwork of this fabulous and magnificent staff has resulted in unparalleled achievements.

- The education program has literally broken new ground in its fruitful collaboration with the REAL Schools Initiative funded by the Rainwater Foundation.
- Our scientific publication got a face-lift and a new name, the *Journal of the Botanical Research Institute of Texas* (*J. Bot. Res. Inst. Texas*).
- BRIT's project in Papua New Guinea received a major grant from The Christensen Fund that will allow research associate Bob Johns to spend the next two years pursuing the documentation of the flora of that island.
- John Janovec, BRIT research scientist and head of BRIT-Peru, received a significant grant from the National Science Foundation that will allow him to develop his ground-breaking concepts relevant to the biodiversity of the areas in Peru where he lives and works.
- Our cutting edge data base program, ATRIUM, is being adopted for use by other organizations and will allow us to organize and store the enormous amounts of data generated by our projects in Peru and Papua New Guinea.
- Two events exceeded expectations for attendance and financial support for BRIT. Our inaugural wine dinner and auction, Fête du Vin, attracted 300 people to a stellar evening at the Fort Worth Club that netted the organization nearly \$100,000. Our annual Award of Excellence in Conservation event honoring Fort Worth civic leader Ruth Carter Stevenson was highly attended and allowed BRIT to net over \$230,000 in support of our programs.
- The planned new home for BRIT adjacent to the Fort Worth Botanic Garden moved closer to realization. The City of Fort Worth began construction of their new Health Department facility south of downtown. When that is complete, BRIT will begin a 70,000 sq. ft. facility with cutting edge space for the collections, library, research, and education programs, and a LEED (Leadership in Energy and Environmental Design) Green Building that will literally have a green roof with plants growing on it!
- Our herbarium went over the million specimen mark, and 18,000 specimens were mounted in 2007.
- Our library exceeded 95,000 volumes of books and journals, and we initiated collaboration with the University of North Texas in Denton to create a database for our library holdings.



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Prickly Poppy (Argemone albiflora)

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Distribution is free to those providing support to BRIT. Comments and suggestions are welcomed and may be sent to the editor at rgeorge@brit.org.

Conveying an unwritten message with flowers was prevalent in the 18th and 19th centuries and came to be known as "the language of flowers." Iridos is the Greek word for Iris. Iris is a sweet-smelling flower and was the symbol of the mythological character Iridos, the messenger of the ancient Greek gods. Iridos was the goddess of the rainbow, winging a message across the sky; in the Iliad, she was the swift-footed messenger of Zeus and Hera. Iridos was selected to carry BRIT's message.

Mission: To conserve our natural heritage by deepening our knowledge of the plant world and achieving public understanding of the value plants bring to life.

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Patrons,

In this issue we highlight BRIT's impact from local to global. As I gathered the articles with the "BRIT FOOTPRINTS" theme in mind, even I was surprised to realize the extent of our activities. We are growing, but we are still a relatively small organization.

I hope as you read this issue that you, too, are surprised to realize all the places where BRIT has left its footprints.

Robert J George
Editor



BRIT Spotlight: Pat Harrison

Pat came to BRIT in 1995 as Education Coordinator. She was ready for a change from her former life as a middle school science educator. Change is exactly what she got and what she brought. Through her tenure here she advanced from Education Coordinator to BRIT's Head of Education and Assistant Director. Her constant work and dedication have made education one of the cornerstones of BRIT's singular position among botanical organizations. As Assistant Director she has done the same for BRIT as a whole. In large measure she is responsible for BRIT's footprint here and beyond.



COVER: Skyline photo by Glen E. Ellman. Photo illustration by Jennifer Henderson.



Conservation Easements: An Alternative

by
GUY NESOM



BRIT's mission is explicitly a conservation one — the organization strives to protect and maintain the natural heritage, biodiversity, and natural resources of our planet in its many regional expressions. Because of BRIT's research orientation with its core plant collection and library and its education program, the approach toward conservation is through science and education: “expanding our knowledge of plants and raising public awareness of the value of plants to all life.”

Without land and water in a natural state, however, many conservation goals are hardly attainable. In this perspective, conservation efforts are bound to the necessity of preserving areas as free as possible from cultural overlay.

Public Versus Private Land in the US

The largest and most significant areas of conserved land in the US are owned by the public: national and state parks, national forests, wildlife refuges, and Bureau of Land Management (BLM). Most Texans are acutely aware of the small amount of public land in the state and the correspondingly limited areas in natural condition (see box 1). Unfortunately, the State Park system has long been without funds to acquire new properties. Additionally, the National

WHY CONSERVE?

Motivation for conservation generally can be attributed to one or two broad reasons:

Human-oriented

We are all interested in ways to keep our own species alive and to ensure each individual's ability to maintain his life, liberty, and pursuit of happiness. Maintenance of biodiversity preserves potentially useful food and medicinal sources, it possibly contributes toward stability of ecosystems, and many of us find that the existence of at least partial elements of a diverse natural world contributes to our own sense of well-being. Humans benefit from increased understanding of the world they live in.

Other-oriented

Many species of organisms (probably a majority of them) are evolutionarily older than humans and it can be argued that they have at least an equal right to continued existence. Human population growth and activity will be responsible for the extinction of many species, and it can be the responsibility of only humans to stop the loss of life.



Blue Creek, Lake Meredith National Recreation Area, Moore County, Texas
Previous page: Bald Cypress (*Taxodium distichum*) in Caddo Lake



2

A scene along the Red River, Grayson County, Texas

Forests in Texas are influenced by timber industry goals and management practices that often do not align with the goals of land conservation. Luckily, Big Bend, Amistad, and the Guadalupe Mountains are securely conserved within the National Park system, but most of us in Texas wish they were more accessible.

Conservation Easements

One route to land conservation is through conservation of private lands. The next few paragraphs introduce basic concepts of conservation easements and land trusts with the hope that *IRIDOS* readers may

consider such avenues toward conservation. Conservation easements effectively ensure private landowners that their property remains in a natural state. A conservation easement voluntarily places a restriction on specific uses of property, commonly its sale, subdivision, or development by a change in use. The landowner retains the rights of ownership and may continue to live on the property and manage it. Public access is not a requirement. The easement is recorded as a written legal agreement between the landowner and “holder” of the easement, generally a non-profit organization (see box 2). Property bound by a conservation easement agreement can

Texas Land Trust Council

- * provides a guide in locating land trusts in particular communities and regions
- * provides a land trust directory, a conservation easement handbook, an annual inventory of conserved lands in Texas, and a conservation information packet
- * provides educational, organizational, and technical support for land trusts and others interested in conservation easements
- * acts as a statewide clearinghouse for conservation information

The handbook (*Conservation Easements: A Guide for Texas Landowners*) is an excellent introduction and guide. Read it online, download and print it, or order a free copy from the organization.

www.texaslandtrustcouncil.org/
 1305 San Antonio Street
 Austin, TX 78701
 (512) 236-0655

1

The total area of Texas is 176 million acres, with 5.7% of that publicly owned. About half of the 5.7% is federally-owned (the largest tracts as national parkland in the trans-Pecos region and the Panhandle). The other half is state-owned (only about 1/5 of that managed by Texas River Authorities and the Parks and Wildlife Department).

The Texas Parks and Wildlife Department system manages 1.4 million acres of state parks and wildlife management areas -- of this 650 thousand acres are owned by the state and the rest is leased from the federal government. In contrast, 1.1 million acres of privately owned land in Texas are explicitly dedicated to conservation purposes.



BOB OKENHON

Natural pond in LBJ National Grasslands, Wise County, Texas

Conservation purposes recognized by the IRS Code

3

- * protection of relatively natural habitats of fish, wildlife, or plants
- * preservation of open space (including farms, ranches, and forests), either for scenic enjoyment or in keeping with a clearly delineated public policy
- * preservation of land for public outdoor recreation or education
- * preservation of historically important land or certified historic structures

be bought, sold, or inherited, but present and future owners are bound to the terms and restrictions of the easement.

Practical Advantages

With proper documentation, a conservation easement may qualify as a charitable contribution with a corresponding federal income tax deduction. Property taxes on non-agricultural easements may be reduced in proportion to the reduction of its commercial

value. Estate taxes also may be greatly reduced. To qualify for tax benefits, the easement must (1) be perpetual and apply to all future owners, (2) be granted to a qualified organization, and (3) meet at least one of the conservation purposes outlined in the Internal Revenue Code (see box 3).

Land Trusts

A land trust is a nonprofit organization involved in protecting land for its conservation



value. More than 40 land trusts in Texas, with varying conservation objectives and approaches, assist landowners with their long-term conservation goals. These organizations purchase land or accept donated properties and easements for conservation purposes, each tailored to meet the specific needs of the property owner. Some work in specific geographic areas or concentrate on protecting different natural or cultural features. Many provide local conservation education and planning assistance.

Texas land trusts currently hold easements, titles, or leases to nearly 600 sites, totaling 1,080,000 acres. Three of the larger that hold easements across the state are the Texas Land Conservancy

(formerly known as NAPA, the Natural Areas Preservation Association), the Trust for Public Land, and The Nature Conservancy. Most operate at community and regional levels. Others, like the Legacy Land Trust, currently preserve more than 5000 acres in the Houston area. The Guadalupe-Blanco River Trust promotes resource conservation in the Guadalupe River Watershed. Connemara Conservancy

Why Texas Land Conservancy Conserves Natural Communities

- * To **protect** native wildlife and plants and to conserve the landscapes that have been important to Texans for generations
- * To **document** a natural history of the land as benchmarks for future generations
- * To **save** critical lands which are crucial for environmental functions such as clean air, erosion control, clean water, and wetlands protection
- * To **function** as biological reserves where our dwindling genetic stock will be preserved in perpetuity
- * To **conserve** open space and reduce the negative effects of land fragmentation
- * To **provide** scientific research opportunities and serve as living classrooms where people can observe and appreciate nature
- * To **preserve** above all the natural diversity essential to the continued health and survival of the environment we all share

focuses solely on North Texas preservation and currently protects over 1200 acres in Collin, Dallas, Delta, Denton, and Hunt counties. The Native Prairies Association of Texas focuses on native prairies, savannas, and other grasslands in Texas and currently holds over 1200 acres in trust. Current and future generations can benefit.

See the BRIT website and click on Research, then go to Botanical Research and A Conservation Mission for additional related information. 🌿



GEORGE DICOS

Beech magnolia forest in Big Thicket National Preserve, Tyler County, Texas



BOB JOHNS

Emerging fern leaf or fiddlehead

Tree Ferns—Not So Oxymoronic

by BOB JOHNS



Though not commonplace outside tropical areas, tree ferns filled the landscape alongside the dinosaurs millions of years ago. Even as long ago as 280 million years several types of ferns with large trunks dotted the continents. Today, tree ferns sometimes form extensive stands on tropical mountains and in the south temperate regions where humid conditions prevail. Several related groups or genera are found in modern landscapes, so let's take a look.

What is a tree fern?

First, a tree fern is simply any fern with a large erect trunk. Botanists put most in two related families: the Cyatheaceae and Dicksoniaceae. A few are sprinkled in other unrelated families. One such family, the Osmundaceae is also home to the

cinnamon fern (not a tree fern) commonly found in East Texas. One genus of tree fern in the Osmundaceae, *Todea*, from the southern hemisphere countries of South Africa, Australia, New Zealand, and Papua New Guinea, is represented by only two species: *Todea barbara* and a rare New Guinea species, *Todea papuana*. Some reach heights of over 12 feet. *Leptopteris*, another genus in the Osmundaceae, has beautifully delicate filmy fronds at the trunk apex and may exceed seven feet in height. But these tree ferns are small compared to the Cyatheaceae.

The Cyatheaceae gets its name from the genus *Cyathea*. Some members of this group tower over the landscape by more than 60 feet. It's also the largest genus of tree ferns, with over 650 species. Recently, some botanists divided the genus into several genera: *Alsophila*, *Sphaeropteris* and

Cyathea. For now, DNA studies and old fashioned study of physical characteristics seem to point in this direction. Many species are very rare and local, particularly in the highland valleys of New Guinea.

The other major tree fern family, the Dicksoniaceae, is easily distinguished from the Cyatheaceae. The family's namesake, *Dicksonia*, and its kin have long, tapering, soft hairs, while the *Cyathea* group bears scales. Though distinguishing the two families may seem easy, it's often hard to tell one *Dicksonia* species from another. Currently only five species are known in New Guinea, but more species probably await discovery there.

Tree Fern Uses

Tree ferns are often used in horticulture, since the fiber from their trunks is particularly suitable for orchid potting mix.



ANDREW MICROBB, KEW, MT. JAYA EXPEDITION

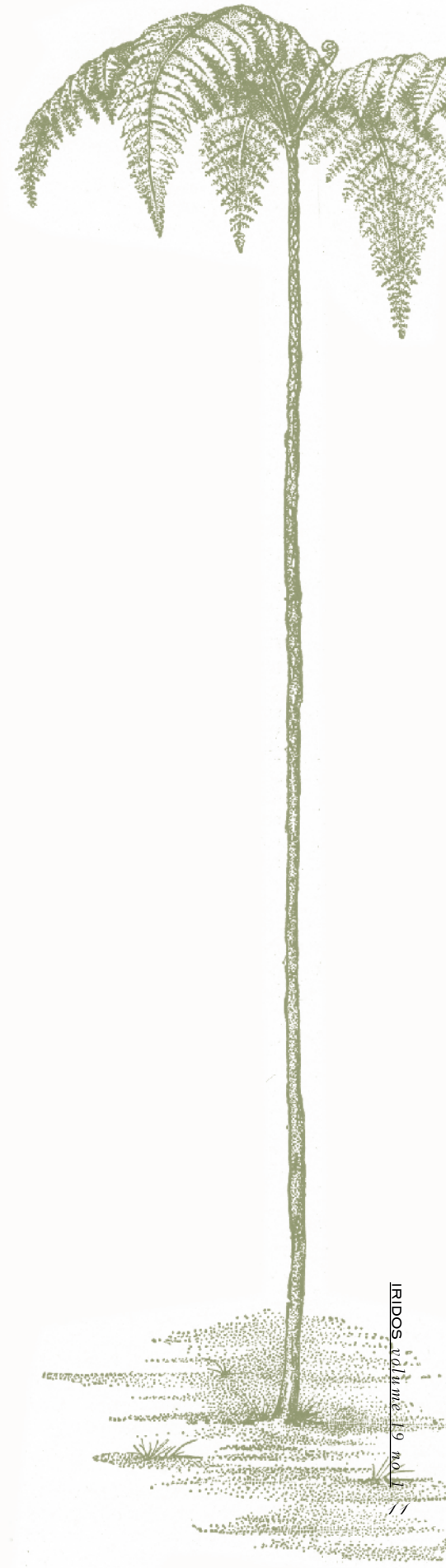
A tree fern community in New Guinea

This has brought several species to the brink of extinction. Tree ferns are also used for the construction of fences and shade houses, and young leaves are commonly on sale as a green vegetable in Borneo and New Guinea markets. Several species are also used for medicines. One relatively new use for tree ferns is for the revegetation of mining waste at high altitudes in New

Guinea. Trial plantings have shown that *Cyathea* can successfully establish itself, possibly reducing the potentially long period required for site recovery. Tree ferns are being increasingly used in the horticultural trade.

Collecting Tree Ferns

Unfortunately, most botanical collections of tree ferns are poor. They often consist of a single pinna (a fern leaf portion) and provide little useful information about the species. Consequently, such specimens are too often useless. Though difficult to collect properly, a good herbarium specimen is an all important key to botanical study. Luckily, BRIT supports research in New Guinea, where many species of tree ferns grow. 🌿



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William Withering and the Old Woman of Shropshire

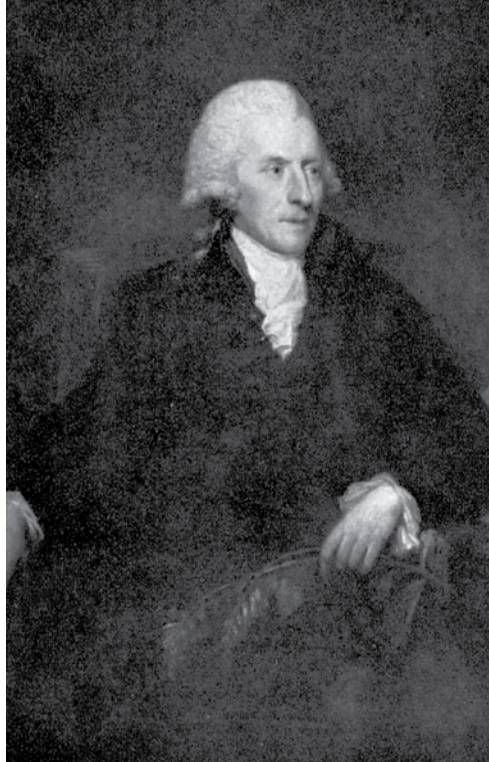
by MARISSA OPPEL



Foxglove (*Digitalis purpurea*)

PHOTO BY TIM BEKAERT, COURTESY OF WIKIMEDIA COMMONS

You may have heard of the old-fashioned affliction dropsy, a debilitating illness that once took many lives. Its symptoms included general swelling and fluid in the lungs. The swelling was no small matter. It was so extreme that many sufferers were immobilized. Others could not breathe unless sitting up perfectly straight, still risking drowning as fluid filled their lungs. For centuries European medicine was completely ineffective in treating dropsy until an English physician considered an old folk remedy.



Portrait of William Withering by Carl Fredrik Von Breda, dated 1792

Distinguished Physician Takes His Cue from a Home Remedy

William Withering, like many 18th century physicians, was also a botanist. He circuitously learned of a treatment used by an old woman from the county of Shropshire in the West Midlands of England. Her complex herbal remedy combined a dizzying array of some twenty different plants. Withering eventually deduced that one plant, foxglove (*Digitalis purpurea*), was most likely the remedy's key component.

After ten years of laborious research and experimentation, Withering published his results in 1785. He recommended foxglove in the treatment of dropsy and, just as importantly, included detailed information on adverse side effects and proper dosing. He realized from his research that the therapeutic dose was dangerously close to the toxic dose. Despite these dangers, powdered foxglove leaves were accepted as a vast improvement over the standard medical treatment of the time – bloodletting.

Foxglove—from Medieval Remedy to Modern Medicine

William Withering's remarkable discovery was already known to the poorer people of England and Wales who could not afford physicians. Foxglove was used topically as far back as the Middle Ages. In 1250, a family of Welsh physicians referred to it as a medicinal plant, and foxglove is mentioned in John Gerard's famous herbal from 1597. However, it was Withering's

revolutionary ethnobotanical investigations and experiments that brought foxglove into common medical usage among physicians.

Today, we recognize the symptoms of dropsy as congestive heart failure. Modern drugs that treat congestive heart failure are still extracted from foxglove and its cousin, Grecian foxglove (*Digitalis lanata*), including digoxin (lanoxin) and digitoxin. These drugs are known as cardiac glycosides, and are found in other species of *Digitalis*. Foxglove actually has some 30 known cardiac glycosides, and Grecian foxglove has 40. Cardiac glycosides increase the force of heart contractions, improving the symptoms of congestive heart failure. In some countries, powdered foxglove leaves are still used as a treatment for congestive heart failure, and the herb itself is listed in the United States Pharmacopoeia.

No Monopoly Here

Several other plants are sources of modern cardiac glycoside drugs, including oleander leaves (*Nerium oleander*), climbing oleander (*Strophanthus gratus*), and lily of the valley roots (*Convallaria majalis*).

In fact, cardiac glycosides are widely distributed in the plant kingdom. They are even found in species of milkweed (*Asclepias* spp.), which is used by Monarch butterflies as a defense mechanism. The butterflies eat the milkweed, unaffected by the cardiac glycosides. But when predators eat the butterflies, the cardiac glycosides produce a strong emetic effect. The effect is strong enough that after one retching experience, predators will avoid all Monarch butterflies. Plants containing cardiac glycosides are poisonous to humans as well, and they should not be eaten.

During William Withering's time, the cause of dropsy was unknown. To his credit, Withering realized foxglove's effects were, in some way, related to the heart. We now know that humans produce endogenous cardiac glycosides similar in structure to those found in foxglove and other plants. These endogenous cardiac glycosides are present in higher numbers in congestive heart failure patients. This may be the body's response to reduced cardiac output, but more research is needed to confirm this.

William Withering's discovery and his willingness to study an old woman's herbal remedy were remarkable. During Withering's time, like today, formally trained physicians were often wary of herbal medicine used by midwives and other alternative practitioners. However, Withering's discovery is a stellar example of the potential of ethnobotanical research. To this day, digoxin extracted from foxglove remains one of the most prescribed cardiac drugs in the United States. 🌿

Atrium's Footprint Lands in New Guinea

by AMANDA NEILL



A Species of *Schefflera* in New Guinea

ANDREW McROBB, KEW, MT. JAYA EXPEDITION

The future of New Guinea may well hinge on BRIT's premier data management system, Atrium. BRIT developed the program to handle all data collected from the Andes to Amazon Biodiversity Program (AABP), and the program is on its way to doing the same for New Guinea.

BRIT's footprints won't be the only ones there. Conservation organizations and other stakeholders (see sidebar) in the future of New Guinea's biodiversity management partnered with BRIT to create the Atrium based Digital Flora of New Guinea (<http://ng.brit.org>), which made its online debut in December 2007. Atrium's potential for collaboration is tremendous.

New Guinea at Risk

The island of New Guinea is one of the most diverse areas in the tropics. With over 25,000 plant species in an area about a tenth the size of the United States, it's a global biodiversity hotspot. Yet it is one of the most poorly known areas of Melanesia—that part of the Old World made up of Australia, Southeast Asia, and all the islands in between. The more remote parts of New Guinea are little-explored, biologically speaking, and species of both plants and animals still remain to be discovered. The fact that its many unique habitats harbor numerous endemic species (species existing nowhere else) makes the likelihood of deforestation and disturbance even more frightening. Unfortunately, many plant species are already listed as threatened

or endangered (264 species in Papua New Guinea alone). The majority of species are so poorly known that it impedes our understanding of New Guinea's ecosystems and consequently hinders sustainable management and conservation practices.

Triage for New Guinea

New Guinea needs help soon. It can't wait for traditional scientific fact gathering, assimilation, and distribution culminating in a 50-year-long flora project. The Digital Flora of New Guinea supported by Atrium will serve as the triage staging area. As a resource, it will provide comprehensive, voucher-based, georeferenced collection data to inform targeting of species, site, and corridor conservation planning.



ROBERT JOHNS

New Guinea Rhododendrons above and below

What does that mean? Basically, Atrium has the ability to organize the enormous amount of data and images collected by researchers working in New Guinea and make these immediately available for use toward conservation action. The Digital Flora of New Guinea will connect the innovative tools and applications of Atrium—digital herbarium, checklists, maps, digital field guides, and more—with efforts of scientists, projects, and institutions. We will be incorporating more researchers’ data in the coming months.

A Wider World

For biologists worldwide, the lack of availability or access to the most current information impedes progress. It is vital to make this information available globally. The Digital Flora of New Guinea will assist future research on the island by directing collectors to critical areas in need of evaluation. We are confident this resource

for botanical collections and other data on a single website will become a useful tool for education and research, in New Guinea and around the world.

This project is supported by the Beneficia Foundation, Conservation International, the Christensen Fund, and the Botanical Research Institute of Texas. 🌿



ROBERT JOHNS



The Digital Flora of New Guinea is the product of a new multi-institutional collaborative project composed of BRIT, Conservation International-Melanesia, the University of Minnesota, the New York Botanical Garden, Harvard University, and the Brooklyn Botanic Garden. The Digital Flora will use the Atrium Biodiversity Information System developed at BRIT as a dynamic repository for plant collections from New Guinea. Cornerstones of this project are extensive. They include New Guinea plant collections from Dr. George Weiblen (University of Minnesota) and Robert Johns (formerly of The Royal Botanic Gardens at Kew, now a Staff Botanist at BRIT). Johns brings decades of experience studying the flora of New Guinea. As a natural outgrowth of his personal plant collection database for the region, he has tirelessly databased other public collections

from New Guinea. It now totals close to an astounding 200,000 records. This is probably one of the largest databased collections for any tropical country. With recent funding from the Christensen Fund for more fieldwork, Johns is actively adding more data and new species.

Quince Mil and Counting

by JOHN JANOVEC

Early one morning in December 2007, I sit in the central plaza of Urcos in the Department of Cusco, Peru, snacking on a breakfast of hot corn on the cob and fresh cheese. I'm waiting for transportation to take my family and me to our new homebase in Quince Mil, a small jungle town in the upper Amazon rainforest at the foot of the Andes Mountains. We arrive around midnight. The sky is pitch black—with lightening on the horizon and strong winds gusting as a torrential rainstorm is about to hit this area. Quince Mil receives no less than 8000 millimeters (26 feet) of rain per year. And it is rumored to receive as much as 15,000 millimeters annually (over 49 feet of rain!), thus the name Quince Mil, or “fifteen thousand” in Spanish.

Hundreds of frogs eagerly await the coming downpour. They chirp in all directions at ear-piercing decibels. Several species of multicolored moths hover around the porch light of the rustic Hotel Tony, built in the 1950s. At this late hour, large and small species of bats fly above and around me on the second floor terrace. After sleeping through the remainder of the night with the white noise of constant, heavy rain, I awake to the exuberant



sounds of white water rapids in a nearby river. The panorama of pristine, green, forested mountains surrounding Quince Mil greets me. I am a botanist. I contemplate the possibility that the region might harbor 5000 or more species of plants, while I drink coffee and watch the early-morning movement of people in this small jungle community of gold miners, loggers, and farmers. In 20 years when my one-year-old child turns 21, I wonder if we will still be able to see and experience the amazing green, mountainous beauty surrounding me on this morning, my first day at BRIT's new base of operations in the upper Amazon.

I worked for the last three years in existing conservation areas in southeastern Peru. In 2008 we began a new phase of field work, one built on a new philosophy of integrating ourselves, the BRIT field team, and BRIT as an institution, into jungle communities. Often conservation areas and the programs associated with them don't reach out far enough to touch the lives and communities of people living nearby. With this in mind, we will live and work with bases in the jungle communities of Quince Mil, and Puerto Maldonado, Peru. We will study forest and wetland ecosystems in and between these regions, with continued work in conservation areas.

By living in the field as members of these small but rapidly growing communities, we will engage in socioeconomic development. Through the BRIT project we will employ members of the local community to serve as guides who will eventually become expert naturalists through hands-on training during our expeditions. By living with our families in these jungle towns, we will invest economically and culturally in the communities. We will strive to document the flora and fauna of the region and investigate and develop means of sustainable use of these natural resources. We will work to integrate our biodiversity and



conservation studies with community-based programs of education and training, following the footsteps and protocols of the BRIT education program. With the encroaching interoceanic highway slated to run through the main streets of Quince Mil and Puerto Maldonado, reaching from the Amazon to the Pacific Ocean, we will document the inevitable changes that are already beginning to take place with the first paved road in the area—in the middle of some of the last, remaining, vast tropical wilderness on Earth. We will offer our knowledge and information to conservation programs being designed, proposed, and implemented by non-profit organizations, municipal, regional, and national government agencies, and local community members.

Since our arrival in Quince Mil, I have been thinking carefully about how the Andes to Amazon Biodiversity Program advances the BRIT mission, too. We are dedicated to the basic and applied sciences that provide for conservation and sustainable use of one of the last, vast tropical wilderness areas of the world. 🌿

The AABP Team in Texas and Peru

The following 16 people are core members of the AABP team in Texas and Peru:

John Janovec - Director of the AABP, newly relocated to Quince Mil, Peru

Amanda Neill - Co-director of the AABP, Director of BRIT Herbarium, based in Texas

Mathias Tobler - Ecologist, currently based in Switzerland finishing his dissertation for Texas A&M University

Jason Best - IT and Atrium Manager, based in Texas

Keri McNew - Project Manager, based in Texas

Tiana Franklin - Research assistant, AABP and BRIT Herbarium, based in Texas

Renan Valega - Project Manager, BRIT-Peru, based in Lima, Peru

Jason Wells - Manager of horticulture, agriculture, and forestry, based in Puerto Maldonado, Peru

Ethan Householder - Manager of the Vanilla and wetland project, based in Puerto Maldonado, Peru

Benjamin Chambi - Field research botanist, based in Puerto Maldonado, Peru

Pedro Centeno - Field research assistant, based in Quince Mil, Peru

Javier Huinga - Field research assistant, based in Puerto Maldonado, Peru

Angel Balarezo - Field research assistant, based in Puerto Maldonado, Peru

Anton Webber - Lead computer programmer, based in Texas

Sean Murphy - Computer programmer and BRIT IT systems administrator, based in Texas

Lynn Totten - Computer programmer, based in Texas

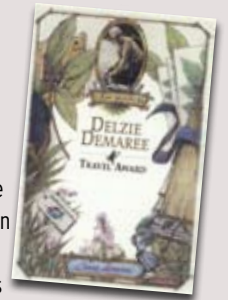


BRIT Opens New Window on Web

Next time you enter www.brit.org be prepared. We have launched a new website! Innerecho, a Dallas-Fort Worth business and technology consulting firm (<http://innerecho.com/>), and BRIT worked together to produce the site featuring more color, design, information, and interaction than our previous web presence. Much new information has been added about BRIT programs and the relationship of conservation to BRIT's research and education. Once we've fine tuned the site we'll enter phase two which will feature more interaction and dynamics. Innerecho provided initial design, structure, components, and mechanics of presentation on the web. The BRIT staff will refine and continually update the site. We hope our new website provides for even more interaction.



2007 Delzie Demaree Travel Award Recipients



The Delzie Demaree Travel Award was established in 1988 honoring Delzie Demaree who attended 35 out of a possible 36 Missouri Botanical Garden symposia before he died in 1987. Demaree was a frontier botanist, explorer, discoverer, and teacher. His teaching career as a botanist began in Arkansas at Hendrix College in 1922. He also taught botany at the University of Arkansas, Navajo Indian School, Yale School of Forestry, Arkansas A&M, and Arkansas State University at Jonesboro where he retired as professor emeritus in 1953. One of the things he enjoyed most as a botanist was assisting students with their field botany research.

The 19th Annual Delzie Demaree Travel Award was presented at the 54th Annual Systematics Symposium in October 2007 at the Missouri Botanical Garden. Three students received the Travel Award: Nora Oleas, Florida International University; Maria Claudia Segovia-Salcedo, University of Florida, Gainesville; and Jackie Van De Veire, University of Illinois at Chicago. Congratulations to all. Members of the Delzie Demaree Travel Award Committee thank all of the students who submitted applications and their academic advisors for writing letters of support.



Travel award recipients (l to r) Nora Oleas, Jackie Van De Veire, and Maria Claudia Segovia-Salcedo.

BARNEY LIPSCOMB

The 2007 Travel Awards were underwritten by the Delzie Demaree Travel Award Endowment, members of the Delzie Demaree Travel Award Committee, and the John Clayton Chapter of the Virginia Native Plant Society.

Butterflies Reign!

Come behold the largest exhibit of live, exotic butterflies in North Texas. March, 2008, will be butterfly month when, in cooperation with the Fort Worth Botanic Garden, the Fort Worth Garden Club, and the Fort Worth Botanical Society, BRIT brings a reign of tropical butterflies to the Garden Conservatory on University Drive in Fort Worth.

More than 12,000 graceful butterflies of every hue and size from around the world will fill the conservatory with shimmering clouds of living color during the month-long exhibit. Visitors will watch as 2,000 butterflies are released throughout each week. Bask with these creatures brought from Southeast Asia, North and Central America and, for the first time in North Texas, from Africa.

You, too, can come frolic with the iridescent Blue Morpho, the graceful Heliconian Longwings from Costa Rica, the Great Mormon and Indian Leafwings from Malaysia, and the yellow Noble Swallowtail from Africa, along with a vast array of other species.

Educational opportunities abound as visitors observe firsthand the dramatic life cycle of these amazing creatures as they emerge from chrysalises in the Pupae Palace inside the conservatory. Outside the Conservatory the Partners in Pollination exhibit will reveal the fascinating relationships between native plants and pollinators, the balance of nature, and the tremendous ecological services pollinators provide in our daily lives. School groups will think like scientists as they explore the life cycles of the butterflies and plants and the plant/pollinator relationship both inside the conservatory and out in the garden.

Butterflies will reign, so don't forget your raincoat!



Butterflies in the Garden

BRIT is partnering again with the Fort Worth Botanic Garden, the Fort Worth Garden Club, and the Fort Worth Botanical Society to bring this show to the conservatory of the Fort Worth Botanic Garden at 3220 Botanic Garden Boulevard. It will be open daily, including Sundays, from 10 a.m. to 4 p.m.

The popularity of the exhibit in 2005 resulted in long lines to view the exhibit. To ease crowding and enhance the visitor experience, the organizers are selling timed tickets in advance at Central Ticket office. Call 800.462.7979 or buy online at www.centralticketoffice.com.

For further information about the event, visit the web sites www.brit.org and www.fwb.org.



ROLE OF ENVIRONMENT > HUMAN HEALTH

2007-2008 BRIT Distinguished Lecturer Series

The Botanical Research Institute of Texas
The University of North Texas Health Science Center

BRIT Distinguished Lecturer Series 2007-2008

The lecture series will be restructured to include one internationally known scientist in the fall of 2007 and two leading scientists in the fields of medical geology and ethnobotany in the spring of 2008. The University of North Texas Health Science Center and the Fort Worth Botanic Garden are partnering with BRIT.

Healthy Planet, Healthy People: A Climate for Understanding

How are we humans affecting the health of our own environment? Is our changing environment affecting us? A rising incidence of human diseases has emerged as a direct result of changes in the environmental health of the planet.

To help us understand, the Botanical Research Institute of Texas, the University of North Texas Health Science Center, and the Fort Worth Botanic Garden collaborate as institutions dedicated to conservation through research and education. This free public lecture series explores the origins and development of diseases and the direct relationship between environmental quality and human health. Three leading international scientists will share their perspectives from their diverse fields of study.

Tibetan Ethnobotany and Climate Change - February 7, 2008

Jan Salick, Ph.D., Curator of Ethnobotany, Missouri Botanical Garden

From Water to Dust: Medical Wonders from the Earth - April 3, 2008

Robert Finkelman, Ph.D., Research Professor, University of Texas at Dallas

BRIT Treats Revelers to Ghoulish Gastronomy

BRIT showed its lighter side on All Hallows Eve, 2007. The BRIT-style evening included a Vegas-style multimedia, smoke and mirrors, cloak and daggers presentation on murderous plants. Botanist Barney Lipscomb was center stage as the messenger of death delivering ghastly tales of toxic terminations. Many revelers came in costume and were treated to a peek at Mr. Lipscomb's museum of death by poisonous plants. Those who still had an appetite, enjoyed a menu that featured not-so-magic mushroom pizza, digitalis dip, and hemlock tea. Hope they make it next year.



BRIT AND OTHERS SPEARHEAD SYMPOSIUM

Conservation and Environmental Stewardship in the Metroplex

An Initiative

Date: September 12, 2008

Time: 8 a.m. - 4 p.m.; reception 4 p.m.- 6 p.m.

Location: Fort Worth Botanic Garden, Leonhardt Auditorium

The Botanical Research Institute of Texas (BRIT) is a major center for biodiversity conservation as evidenced by its research programs, significant plant collections, and botanical library. These resources support and facilitate local, regional, and global efforts that preserve the health of the planet for future generations.

As conservationists, we recognize the many challenges our region faces with population growth, water availability, land use, and air quality. BRIT, Texas Christian University, and Southern Methodist University organize this symposium in the interest of exploring the potential problems and



Conservation & Environmental
Stewardship in the Metroplex

opportunities around these issues in our future. This community forum will promote dialogue and investigate the complex factors that can work together to promote and preserve a sustainable quality of life.

Open to the general public, this one-day symposium features local leaders representing the economic, environmental, and cultural perspectives of local communities. A moderator will lead a panel debate on issues and pose questions for further discussion. A wine and cheese reception wraps up the day to encourage interactions among speakers and participants.

Topics Forge Wide Path

BRIT produces a wide botanical footprint with the second publication (December 2007) of the new *Journal of the Botanical Research Institute of Texas*. Included in the array of articles are new species, floristic surveys, plant succession in Tennessee cedar glades and Louisiana prairies, clarifications of names and identifications, and studies of evolutionary relationships.

Thirty-five species and varieties new to science are described from far-flung localities, including Hawaii, Nevada, Canada, Mexico, South America (Peru, Ecuador, Colombia, Venezuela, Guyana), the Philippines, and India. And this news was broadcast, via hardcopies of the journal, to six of the seven continents (Antarctica excepted) on the planet. Seventy-two species were given new names reflecting changes in taxonomic concepts. In other words, research determined new relationships or affinities in these species, and these new interpretations find expression in the new names.

Footprints of BRIT Staffers Trek from Canada to Mexico

Lipscomb, B.L. and G.L. Nesom. 2007. *Galium anglicum* (Rubiaceae) new for Texas, and notes on its taxonomy.

The authors clarify identifications, names, and US distributions for three similar species of European *Galium* (bedstraw). These European natives are now spreading as weeds in North America. The occurrence of *Galium anglicum* in Texas and South Carolina is reported for the first time.

Nesom, G.L. 2007. A new gypsophilous species of *Erigeron* (Asteraceae: Astereae) from northeastern Mexico.

Gypsum outcrops in northeastern Mexico have fostered the evolution of many endemic species (species found nowhere else). Another is described here, known only from a few collections by George S. Hinton from outcrops northwest of Monterrey. *Erigeron heleniae* (named for George's mother) is recognized by its diminutive size, thickened taproot, glandular hairs, linear leaves, and tiny, solitary heads with white outer threadlike petals.

Nesom, G.L. 2007. Distribution of *Gamochoaeta* (Asteraceae: Gnaphalieae) in Texas, Oklahoma, Arkansas, and Louisiana.

Species of *Gamochoaeta* (cudweeds) are common colonizers of roadsides and other disturbed sites in the southeastern United States. Several of the species may be native to North America, but others are probably native to South America. They most likely have recently

Phipps, J.B. and **R.J. O'Kennon.** 2007. Hawthorns (*Crataegus*: Rosaceae) of the Cypress Hills, Alberta and Saskatchewan.

Hawthorn species (*Crataegus*) are by far the most abundant shrubby plants of the Cypress Hills of Alberta and Saskatchewan, Canada. A distinct combination of topography, temperature, precipitation, and soils has given rise to this remarkable "ecological island," where 13 hawthorn species occur. Seven are new to science and most are common at least in the Cypress Hills. Four are found only in the Cypress Hills.

arrived in our area and are rapidly expanding their range. This study details geographic distributions of seven species in Texas, Oklahoma, Arkansas, and Louisiana. Here most cudweeds are at the eastern or southeastern edges of their North American range. *Gamochoaeta coarctata* and *Gamochoaeta chionesthes* are known only from collections made after 1967.

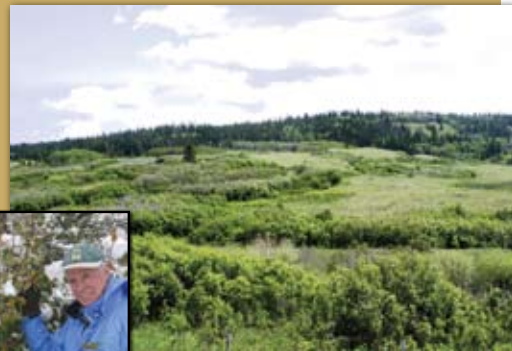
Significant Floristic Studies Abound

Results of floristic surveys are reported for

- Washington County, Pennsylvania (about 980 species are found there)
- a portion of the Chunky River, a newly designated "scenic river" in east-central Mississippi (about 800 species)
- National Park Service areas of Timucuan Ecological and Historic Preserve (including Fort Caroline National Memorial) in Duval County, Florida (474 species)
- large islands off the coast of Sonora, Mexico, in the Gulf of California (increasing the known number of species by about 15% for two of the islands).

Studies in Texas track important changes afield

- an 'alien' species of spring vetch is discovered in the state - it's native to Europe, Asia Minor, and Africa and now spreading to eastern Asia, the Australian region, and the US
- observations and clarifications are reported for additional species in East Texas
- a study of Texas orchids documents recent name changes and clarifies identities; good news is reported with rediscovery of species thought to have been wiped out
- a study of Big Thicket species reveals most have their distribution in the eastern and southeastern US, with very few from the western US



BOB O'KENNON

As you can see, BRIT staff and others trek across our expansive landscape and offer significant botanical news and information in the *Journal of the Botanical Research Institute of Texas*.

Journal of the Botanical Research Institute of Texas (J.Bot.Res.Inst.Texas) (formerly Sida, Contributions to Botany) is an international journal of systematic botany and has been a source of current research in classical and modern systematic botany for readers throughout the world for nearly 50 years. The journal publishes primary research papers in fields such as anatomy, biogeography, chemo-taxonomy, ecology, evolution, floristics, genetics, paleobotany, palynology, and phylogenetic systematics. Coverage is not restricted to any geographical area, and papers are contributed from authors around the world. It is published twice a year, with papers and abstracts in two languages. All papers are peer-reviewed and are frequently illustrated with maps and line drawings. Each issue includes short communications on floristic discoveries, book reviews, and notices of new publications.

Journal of the Botanical Research Institute of Texas:

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- Organizational subscription within the U.S., \$95
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Botany 101 for Lifelong Learners

On November 6 and 13, 2007 several brave souls came together in BRIT's Learning Center to undertake one of botany's greatest challenges under the leadership of botanists Guy Nesom and Robert George. The challenge? To learn how to distinguish one grass species from another. With microscopes, specimens, and field guides in hand, the novices counted florets and glumes, searched for hidden lemmas, and marveled at the ingenious reproductive and defensive adaptations of grasses. After the two in-class sessions, they took to the field to test their knowledge.

BRIT's Botany 101 classes continue for spring. Course listings, now published in the *TCU Learner's Guide*, offer new opportunities with the Institute's engaging staff. Dive into basic botany, digital photography, GIS/GPS systems, preventing poisoning by poisonous plants, collecting and preserving plant specimens, botanical illustration, and nature journaling techniques. For a complete list and to register, visit the TCU Extended Education website at www.lifelong.tcu.edu or call 817.257.7132. Below is a listing for your convenience. See TCU's website for complete details.



MARILYN SALLEE

BOTANY 101 COURSES FOR SPRING 2008

(BRIT members receive a 15% discount)

18 MARCH 2008

Murderous Plants – Poisonous Herbs in Our World

Instructor: Barney Lipscomb, Head of Press

Tu 6:00 – 8:00 p.m.

BRIT Learning Center

Course Fee: \$40

19, 20 MARCH 2008

Digital Nature Photography (2-part course)

Instructors: Tiana Franklin, Andes to Amazon Biodiversity Program and Bob O'Kennon, Research Associate

W 6:00 – 8:00 p.m., BRIT Learning Center

Th 5:00 – 7:00 p.m., Fort Worth Botanic Garden

Course Fee: \$50

2, 9, 16, 23 April 2008

An Overview of Botany: Learn to Identify Plants

(5-part course includes daytime field trip as fifth session TBD)

Instructor: Amanda Neill, Herbarium Director

W 6:00 – 8:00 p.m. First four sessions

BRIT Learning Center

TBD Fifth field trip session

Course Fee: \$80

22 April 2008

Art and Science: Ways of Seeing

Instructors: Barney Lipscomb, Head of Press and Pam Chamberlain, Distance Learning Coordinator

Tu 6:00 – 9:00 p.m.

BRIT Learning Center

Course Fee: \$60

23 April 2008, (2-part course: First session in classroom, second session is a Field trip TBD)

Navigation in Fort Worth: An Introduction to GIS/GPS

Instructors: Keri McNew, Andes to Amazon Biodiversity Program and Tiana Franklin, Andes to Amazon Biodiversity Program

W 6:00 – 8:00 p.m. Classroom session

BRIT Learning Center

TBD Field trip

FW Nature Center

Course Fee: \$50

1 MAY 2008

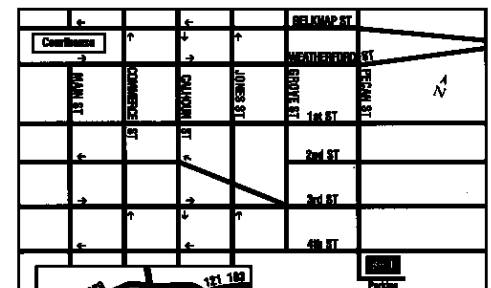
Collecting, Pressing, and Mounting Plant Specimens

Instructors: Lee Luckeydoo, Herbarium Collections Manager, and Tiana Franklin, Andes to Amazon Biodiversity Program

Th 6:00 – 8:00 p.m.

BRIT Learning Center

Course Fee: \$40



BRIT is located in downtown Fort Worth at the corner of 4th and Pecan Streets

Fort Worth's major arteries

Special Books in the Library

by GARY JENNINGS



BRIT's botanical library tracks with some of the best in the nation and beyond. Here are some of our newest and most interesting acquisitions.

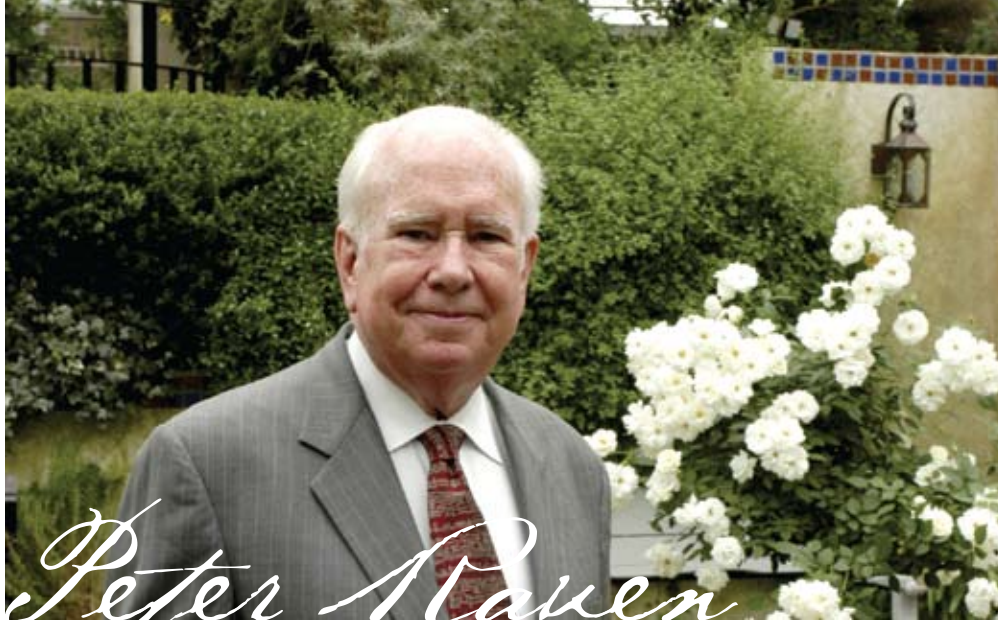
John Hill. *The British Herbal: an history of plants and trees, natives of Britain, cultivated for use, or, raised for beauty*. London: T. Osborne [et al.], 1756-1758. This is one of the first publications appearing after Linnaeus' *Species Plantarum* of 1753 to use the binomial system of classification.



Mary Vaux Walcott. *North American Wildflowers*. Washington DC: Smithsonian Institution, 1925. During her early years, on family summer vacations to the Rockies, Walcott developed into an accomplished amateur botanist, watercolorist, and mountaineer. Her wildflower publication was to become "the Audubon of Botany," and a 10,000-ft. peak in Jasper Park, of the Canadian Rockies, was named for her.



Maria Antonietta (Maretta) Colasante, editor; Anne Eldredge Maury, plates. *Iconografia de Iridaceae presente in Italia=Iconography of Iridaceae present in Italy*. Italy: Ministero dell'Ambiente e della Tutela del Territorio, 2006. This work on the Iris family was commissioned by the Ministero to spread knowledge of the plant life which characterizes Italy. The plates, produced as a large folio (19 ½x27 ½ inches), illustrate the plants in life size.



Peter Raven
DIRECTOR, MISSOURI BOTANICAL GARDEN



Recipient of the Botanical Research Institute of Texas' 2008 International Award of Excellence in Conservation



by AMANDA MORRIS

BRIT's 2008 International Award of Excellence in Conservation gala will be held Thursday, 15 May, at the Renaissance Worthington Hotel in Fort Worth, Texas.

Dr. Peter Raven, director of the Missouri Botanical Garden, receives the award this year. He has nurtured the Garden during the past 36 years into a world-class center for botanical research, education, and horticulture.

"Peter Raven's lifework makes him a deserving recipient of this award," noted Sy Sohmer, BRIT's director. "Dr. Raven's leadership has turned the MBG into the leading tropical plant research facility in the world, and TIME magazine labeled him a 'Hero for the Planet' in an article from April 1999."

Under Dr. Raven's direction, the Missouri Botanical Garden has become a leader in botanical research in Latin America, Africa, and Asia, and it has strong programs in North America as well. This research has many direct and positive effects on programs that conserve natural resources and biodiversity. The Garden's education

program reaches more than 100,000 students each year and provides professional development for teachers.

In recognition of his work in science and conservation, Dr. Raven has received numerous awards, including the International Prize for Biology from the government of Japan, the Environmental Prize of the Institute de la Vie, the Volvo Environment Prize, the Tyler Prize for Environmental Achievement, and the Sasakawa Environment Prize. He received the National Medal of Science from President Clinton, the highest award for scientific accomplishment in this country. He has served as President of the American Association for the Advancement of Science, the largest organization of professional scientists in the world, and has held Guggenheim and John D. and Catherine T. MacArthur Foundation Fellowships.

Dr. Raven is famous for his studies of the evening-primrose family (Onagraceae) and continues with active research interests. He has written numerous books and publications, both popular and scientific, and is

co-editor of the Flora of China, a joint Chinese-American project that is producing a contemporary account on the plants of China.

BRIT would be honored to have you join in celebrating this esteemed researcher and conservator. About 500 people are expected to attend the gala at the Renaissance Worthington Hotel, 200 Main Street, Fort Worth. A reception at 6:45 p.m. in honor of Dr. Raven will precede the dinner, which begins at 7:15 p.m.

For ticket and sponsor information, call Amanda Morris, 817-332-4441, ext 15, or email her at amorris@brit.org.

Created in 1995, the International Award of Excellence in Conservation is presented annually to an individual or organization that exemplifies the ideals expressed in BRIT's mission: to conserve our natural heritage by deepening our knowledge of the plant world and achieving public understanding of the value that plants bring to life.



STAFF PHOTO

“BRIT has created a novel, must-attend annual benefit!”

– Bill Lawrence, Lawrence & Associates

Fête du Vin—a Grape Celebration



by AMANDA MORRIS

Wine novices and aficionados alike joined together

for a unique and exciting evening at BRIT’s Premier Fête du Vin, Wine Auction and Dinner. Fête du Vin was held in downtown Fort Worth at the elegant Fort Worth Club.

The evening included a multi-course dinner, prepared especially for Fête du Vin, paired with fine wines and champagne. There was also a twist. Guests were encouraged to bring their own wine to the dinner.

“Having guests bring some of their own wine was a great idea,” noted Sy Sohmer, Executive Director of BRIT. “Many brought some of the finest wines in their cellars. Instant friendships were struck in the convivial atmosphere of sharing and discovery.”

David Reynolds of Reynolds & Buckley, in San Francisco steered the auction and motivated bidders to raise their paddles high and keep them there. David and Gary Cumbie, the evening’s master of ceremonies, continually entertained the crowd and no doubt helped boost BRIT’s proceeds far beyond its anticipated goal.

“The wine dinner and auction was exceptionally lively and enticing,” noted Mary Anne Sanchez-Zambrano, an attendee.

We hope you’ll join us Friday, 24 October 2008 for the second Fête du Vin. It’s sure to be another memorable, festive occasion! 🍷



STAFF PHOTO



STAFF PHOTO

Distance Learning Extends Its Stride

by PAM
CHAMBERLAIN



A new program series, “In the News,” launched the distance learning school year in September 2007. For BRIT’s part, we created and delivered a program elevating students’ knowledge and awareness of Colony Collapse Disorder¹ and its resulting domino effect on agriculture. The program “Bees Beware: the Hard Life of an Agrifactory Worker” was broadcast in September, engaging no fewer than 1500 students in Texas and Kansas!

In October, we offered “Mum Mania: the History and Botany of the Homecoming Mum.” Over 200 middle and high school students joined the program interfacing with BRIT researcher Dr. Guy Nesom. His enthusiasm for all things botanical was injected into this ever-popular member of the Sunflower family (Asteraceae).

Delivering “Bella Comes to BRIT” to a third grade class in Canada proved to be well-timed. The Canadian third grade curriculum includes the study of Peru, so it was a cinch for educators to pick the “Bella” program. It chronicles the life of the begonia, Bella, collected in Peru, and her journey to the BRIT herbarium in Fort Worth. So, in November, Peace River Elementary School in Alberta learned about plants and Peru and interacted with BRIT staffers Keri McNew and Tiana Franklin. The two gave first-hand insights into the Andes to Amazon Biodiversity Program. Our Canadian connection concluded when the children introduced us to Roxie, their very own begonia. Getting kids involved is what videoconferencing is all about!



Students in Texas tune in to Distance Learning

PHOTO COURTESY REGION XI

Through the magic of digital editing, BRIT produced a Jeopardy-style video for the Holiday Season. Once again BRIT staff provided the talent and expertise to pull off a comedic and informative spoof on the television game show.

“Tis the Seasoning,” starring Barney Lipscomb, Dr. Lee Luckeydoo, Dr. Brooke Byerley, and Robert George (dressed in costume as Marco Polo) taught interesting facts, botany, and legends of holiday spices and seasonings to over 300 students. Another program,

“Holiday Herbaria,” emulated the Dr. Seuss writing style and presented a poem illustrating the importance of plant contributions to Christmas, Hanukkah, and Kwanzaa. This presentation, like another very popular distance learning program “Green Monsters,” was a combination of science and art. The “Holiday Herbaria” program wrapped up with a demonstration of a pop-up book highlighting the holiday plants. This time over 800 students and adults at nearly 30 schools turned on and tuned in.

Once again, BRIT extends its impact across the world. And, thanks to videoconferencing technology, our footprints walk along side thousands of others, large and small, across the globe. The Connect2Texas Program and website, hosted by the Education Service Center Region XI, allow the length of our stride to span thousands of miles. Distance learning programs benefit students of all grade levels and carry them to new heights of discovery and learning. 🌿



STAFF PHOTO

¹ Colony Collapse Disorder is a little understood event in which most bees in a beehive seem to rapidly disappear resulting in the death of the colony.

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Well-Kept Secret Exposed at BRIT Brown Bag

Randy Weston really let it out of the bag when he came to BRIT last November.

The well-kept secret? Weston Gardens in Bloom. Doubtless the property was no secret in the 1930s when it belonged to Leon Bandy and was called Dripping Springs. In fact, it was a well known destination for the swells of Fort Worth wanting to escape the noise and heat of downtown. At the Bandy Estate they reveled in clear water swimming holes, exotic landscaping, and generous hospitality.

The property actually was a secret to Randy when he and his wife Sue first moved into their newly established nursery in southeast Fort Worth. But they soon acquired the somewhat orphaned estate in 1988 after he literally "discovered" it across the street. It then became a life-long undertaking to restore the property and eventually transform it into premier demonstration gardens.

Westons Transform Neglected Estate

It didn't happen overnight. Their work on the property began on a small scale; they labored, transforming only a portion into a showpiece for Randy's landscape design skills. As they expanded, the gardens became a showcase of plants available in their nursery. Over the course of 21 years the restoration effort became an adventure encompassing historical research, archeology, and hydrologic engineering. Pathways, pergolas, and stonework were resurrected precisely to their former glory. Native and adapted trees, shrubs and eye-catching perennials replaced traditional English garden plants of the old estate. With the addition of sculpture in the gardens and afternoon tea served on the deck of their landlocked masonry sailing vessel, the Estate is a destination once again. Though the adventure continues, the Westons feel they have accomplished one of their goals: to preserve some of the history of early Fort Worth, while creating a garden filled with horticultural and architectural elements relevant to today's garden enthusiast. The Westons have worked magic. Indeed, you can easily imagine bumping into the Great Gatsby around any corner.



COURTESY RANDY WESTON

Find out more about the Gardens. Go to www.westongardens.com.

Join the lunch crowd at BRIT in 2008 for another series of engaging informal programs.

14 May 2008

Noon to 1:00 p.m.

BRIT Learning Center

The Life and Times of Gideon Lincecum, Texas Naturalist

Come see and hear a Chautauqua-style lecture based on the writings of Dr. Gideon Lincecum, the 19th century Texas naturalist. Working as a team, Dr. Jerry Lincecum and Dr. Peggy Redshaw of Austin College in Sherman will draw upon their published research to bring Dr. Lincecum to life.

Speaking as a professor of biology, Redshaw sketches Lincecum's life and achievements. Then his great-great-great grandson, English professor Jerry Lincecum, appears in 19th-century costume to talk about Gideon's observations of the flora and fauna, and people and cultures he found in Texas from 1835-1874.

Lincecum and Redshaw, along with their colleague Edward Hake Phillips, Emeritus Professor of History, Austin College, have published three books drawn from the Lincecum Papers: *Adventures of a Frontier Naturalist*, *Science on the Texas Frontier*, and *Gideon Lincecum's Sword: Civil War Letters from the Texas Home Front*. Books will be available at the lecture.



STAFF PHOTO

Redbud (Cercis canadensis)



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