# **Society for Ecological Restoration Texas Chapter**



### Restoration Update

### April, 2014

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### **TXSER Newsflash**

Many congratulations to Marissa Sipocz, former TXSER Board Member and Wetland Program Manager for the Texas Coastal Watershed Program, and her colleagues at Sheldon Lake State Park, nominated for the 2014 Texas Commission on Environmental Quality's Texas Environmental Excellence Award (TEEA). The award honors the state's most outstanding waste reduction and pollution prevention projects. Awards are given in nine diverse categories across public and private sectors. Sheldon Lake State Park's prairie wetland restoration project was one of 4 nominations in the civic/community category.

#### TXSER Board of Directors

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Sheldon Lake State Park's prairie wetland restoration effort has changed the template for implementing freshwater prairie restoration and creation along the Gulf Coast. The project utilizes the "Sheldon-Sipocz" method which gives consideration to the historical placement of wetlands on the landscape and utilizes georeferencing tools to locate and re-expose native wetland soils precisely where they had been prior to agricultural development. With participation from public agencies, schools, and community organizations, the project has restored native wetland vegetation and wildlife, bringing back this endangered habitat critical to water quality and flood attenuation.

To learn more about these efforts, click on the link below to read a 2013 article written by Marissa. <u>Freshwater Coastal Prairie</u> Wetland Restoration - Case Study: Sheldon Lake State Park

### **Member Spotlight**

Name: Chase Currie

West Texas Rep. Katherine Crosthwaite

Central Texas Rep. Ingrid Karklins

Coastal Texas Rep. Mary Edwards

Chapter Coordinator Gwen Thomas

TXSER info@txser.org (469) 321-4883

## Employment Opportunities & More

For up-to-date
announcements of positions
open in ecological
restoration and
environmental science,
visit our website at:
Job Postings

We also post a wide range of articles on ecological restoration issues as well as job and volunteer opportunities on our Facebook page at:

TXSER Facebook Page



Like us on Facebook

We are heading west for 2014!

19th Annual TXSER Conference co-hosted with SER/SW is scheduled for October 17-19, 2014 in Alpine, Texas

Click Here for Details

City: San Antonio, TX

Affiliation: Natural Resources Manager, San Pedro Ranch



Monitoring on San Pedro Ranch. Photo Credit: Chase Currie

**Briefly describe your ongoing efforts/interest in ecological restoration:** I have been at my current position now since December 2012. My primary role focuses on the mitigation and restoration of oil and gas disturbance in south Texas as a result of

the Eagle Ford Shale. Our goal is to return disturbed areas,

whether it be drilling locations or pipeline right-of-ways, back to their pre-disturbance state. I am currently working with others on a large scale watershed restoration project as well.

**Describe your favorite outdoor activity:** I enjoy spending time in unscathed "wild" places. I also enjoy working in my native plant garden.

### What is your favorite plant and/or animal?

Favorite Plant: Foxglove (*Penstemon cobaea*)



Foxglove (Penstemon Cobaea). Photo Credit: Edith Bettinger, Lady Bird Johnson Wildflower Center

### **Upcoming Conferences**

#### **2014 Biennial Pronghorn Workshop**

"Managing Pronghorn on Private Lands"
May 12-14, 2014, Sul Ross University, Alpine, TX
Co-hosted by: TPWD & Borderland Research Institute

For more information: Pronghorn Workshop

#### **5th Annual State of the Prairie Conference**

May 29-31, 2014, Fort Worth Botanic Gardens Fort Worth, TX Co-hosted by: Coastal Prairie Partnership & Native Prairies

Association of Texas

For more information: State of the Prairie

### **TXSER Student Association News**

By: Ingrid Karklins

BS Candidate, Department of Ecosystem Science & Management College of Agriculture & Life Sciences, Texas A&M University, College Station

Texas A&M Society for Ecological Restoration Student Association had two exciting guest speakers this spring.

On March 3rd, Dr. Steven Whisenant spoke with TAMU SER about his experience

in South Sudan, a country established in 2011 and still undergoing a period of reorganization. Whisenant was contracted to work with John Garang Memorial University in Bor to train educators on agricultural practices. In this capacity, he established a farm at the university used for teaching purposes and for providing food for students. He also introduced a new method for smoking fish with clay smokers which proved more sanitary than the original sun-drying method being used. The technique also allowed local residents a new way to sell fish at market.

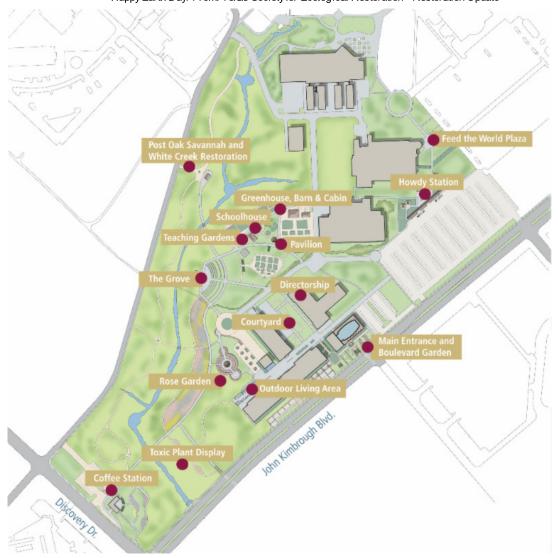
In addition to agricultural advancements, Whisenant helped build the university's first science lab. Unfortunately, this lab was never used due to civil strife in South Sudan. During his time in country, rebel groups became increasingly powerful, ultimately making it too dangerous for him to continue his project. Whisenant stressed that while the natural environment in South Sudan is relatively intact and had suffered limited disturbance, the human environment is in need of great care.



**Photo Credit: Google Photos** 

Dr. Whisenant is currently a Professor of Ecosystem Science and Management at Texas A&M University and headed the department from 2007-2012. He currently has a joint affiliation with the Norman Borlaug Institute for International Agriculture where he serves as Regional Director for the Middle East and North Africa. Since 2011, Whisenant has served as Chair of the Society for Ecological Restoration's Board of Directors.

On April 7, Douglas F. Welsh, Ph.D, spoke about "Texas A&M Gardens and Greenway - A&M's New Backyard." This restoration project, which includes White Creek, is taking place on A&M's west campus. This area will eventually become the "backyard" of Texas A&M, providing a diverse natural escape for recreation and for outdoor classes and labs.



Teaching Gardens. Texas A&M Gardens & Greenway Project
Photo Credit: Texas AgriLife Extension Service

White Creek was designated as the west campus greenway in 1998. Today, it is the last natural asset on the Texas A&M campus and provides habitat for approximately 50 species of birds. The growing student population and subsequent need for more buildings has brought about new challenges in protecting this wetland including how to deal with stormwater runoff and how to provide safe and effective connectivity for students.

The Texas A&M Gardens and Greenways project holds much promise for a "greener" future. There will be teaching gardens, vegetable gardens, fruit orchards, rain gardens, butterfly gardens, rose gardens, a toxic plant display, an amphitheater, a plaza, and a Howdy Station for grades K-12. Restoration will be done on the post oak savannah and wildflower meadows as well. For many generations to come, Aggies will be able to enjoy and learn from the White Creek area.

Dr. Welsh has served as project leader for Extension Horticulture and as coordinator for the Texas Master Gardener Program. His special horticultural expertise is on landscape water management. He co-authored the book, "Xeriscape Gardening: Water Conservation for the American Landscape" and recently published the book, "Doug Welsh's Texas Garden Almanac." Dr. Welsh has over 30 years of experience as a garden writer and broadcaster, having provided regular garden programming and columns for regional radio stations and newspapers. He currently produces a weekly one-hour, call-in garden show on College

Station's KAMU-FM, public radio.

### **Coordinator's Corner**

### **Incorporating "Designed Experiments" into Restoration and Landscape Development**

Are you including "designed experiments" in your restoration efforts? According to Richard Conniff, author of "Rebuilding the Natural World: A Shift in Ecological Restoration," a new trend in restoration efforts is starting to take root. Ecologists and landscape designers/developers are working together to implement projects that include long-term monitoring and improvements. This shift has come about as recent studies indicate that ecological restoration efforts seldom function as intended. According to Conniff, a 2012 study in PLOS Biology examined 621 wetlands projects and found that most had failed to deliver promised results or to match the performance of natural ecosystems. Likewise, Margaret Palmer at the University of Maryland reports that more than 75 percent of river and stream restorations failed to meet their own minimal performance targets. So, why is the success of ecological restoration projects being derailed? Perhaps it is because restoring a natural system to its "original" state is a long-term prospect and long-term investigations have proven difficult to establish and maintain.

According to Alexander Felson, urban ecologist and landscape architect at the Yale School of Forestry and Environmental Studies, "there is increasing interest in "designed

experiments" - experiments designed by ecologists and incorporated into development and landscape restoration projects to test which alternative approaches work best. The idea is to improve the project at hand and also to provide a scientific basis for making subsequent projects more successful."

Conniff provides an example of New York City's Million Tree Initiative which in 2007 proposed to plant 2000 acres of new and restored forest over a 10 year period. The project fit the city's sustainability goals, but planners didn't have much basis for determining which species were more likely to achieve these goals or where to plant them. Felson and a team of scientists and designers proposed designed



Designed Experiment, Million Trees Project Photo Credit: www.milliontreenyc.org

experiments for New York's planned forests - plantings with different species, in varying configurations, some with compost or other amendments, some without - to learn what worked best. The goal was to study traits like carbon sequestration and how species patterns change over decades; yet, less than a decade in, the study is already producing results that are useful within the context of the 10-year Million Tree Initiative.

This idea of a designed experiment can be observed in restoration projects around the world. In the northeastern Chinese city of Tianjin, a 54 acre former shooting range that had become an illegal dumping ground, heavily polluted from urban runoff is the site of a current cleanup and restoration project. Instead of traditional formal plantings as are so often found in Chinese landscapes, the site has been designed as a "peasant" landscape



Qiaoyuan Wetland Park, Tianjin, China Photo Credit: Turenscape

based on traditional rice farms. A terraced system of 21 ponds with grasses and reeds designed to filter urban run-off is complemented by walkways and viewing platforms for the local residents. The ponds are of different sizes and depths with the aim of monitoring how each microhabitat affects water quality, pH values, and the character of the evolving plant and animal communities. Ecologists and students at Beijing University do the monitoring and the results are being channeled into subsequent projects that also incorporate designed experiments.

The goal of incorporating designed experiments more broadly into restoration and development efforts is likely to meet

resistance on both sides. Developers may consider ecologists as natural adversaries, and research as a costly nuisance. The idea of working within the agenda of developers and government agencies may also strike some ecologists as a fatal compromise. Yet, as urban crowding increases worldwide and the effects of climate change become more evident, creative partnerships among development and restoration projects may deliver multiple ecosystem services fostering improved landscape, ecological inquiry, and a continual learning process with built in feed back about what works and what does not.

What is your experience with "designed experiments" here in Texas? Send us a note, we'd like to know.

Adapted from: "Rebuilding the Natural World: A Shift in Ecological Restoration" by Richard Conniff in *Yale Environment* 360. March 2014.

The Society for Ecological Restoration, Texas Chapter promotes ecological restoration as a means of sustaining the diversity of life on Earth and re-establishing an ecologically healthy relationship between nature and culture.

### Become a member today!

### **Click Here to Join Us!**

Join the Texas Chapter of the Society for Ecological Restoration. Chapter members receive valuable benefits including:

the opportunity to network with restoration practitioners and enthusiasts; discounts to our Annual Conference, an opportunity to share and learn; invitations to attend volunteer workdays around the state; and, monthly updates and quarterly newsletters with articles and notices about regional events that allow you to connect to the local restoration community.

Chapter membership fees of \$15 support chapter administration. The TXSER Board of Directors consists of volunteers who share a passion for furthering ecological restoration in Texas.

Joining SER links you with a global restoration network. SER member benefits include:

SERNews quarterly newsletter; discounts on journal publications; discounts to SER World Conferences; discounts on SER Career Center; access to Restoration Project Showcase; access to a searchable, online member directory, and, promotional opportunities through the SER Calendar of Events and Restoration Project Showcase.

To become a member visit: www.ser.org/membership

Be sure to click the Texas Chapter as your Chapter Affiliate. We look forward to having you join us!

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