

# Society for Ecological Restoration Texas Chapter



## Restoration Update

August, 2015

### In This Issue

TXSER Newsflash  
Conference Update  
Member Spotlight - Heather  
Alexander  
Landscape Photography  
TXSER Sponsors  
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## TXSER Newsflash

### Quick Links

1/4ly Newsletter Archive  
Monthly Update Archive  
Ecological Restoration  
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More About TXSER  
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### Conference Registration is Open!

To register, click on the Eventbrite button below and you will be directed to our conference page.

[Register Now](#)

### [TXSER Conference Details](#)

## Conference Update

**November 13-15, 2015 - Trinity University, San Antonio**

### TXSER Board of Directors

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Charlotte Reemts

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**Call for Abstracts** - [Click here for information on presenting papers and/or posters.](#)

**Call for Sponsorship** - [Click here to support the 2015 TXSER Conference.](#)

**Call for Photos** - To celebrate our 20th anniversary we are collecting photos from previous TXSER events. If you have photos you would like to share, please send them to Kate Crosthwaite at: [katherine.crosthwaite@hdrinc.com](mailto:katherine.crosthwaite@hdrinc.com)

## Member Spotlight

**Name:** Heather D. Alexander

Michelle Villafranca

East Texas Rep.  
William ForbesSouth Texas Rep.  
Eric GrahmannWest Texas Rep.  
Katherine CrosthwaiteCentral Texas Rep.  
Ingrid KarklinsCoastal Texas Rep.  
Mary EdwardsCoastal Texas Rep.  
Bradley HogeChapter Coordinator  
Gwen ThomasTXSER  
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### 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](#)

### Join Us...

**Celebrate TXSER's  
20th Anniversary**

**City:** Starkville, Mississippi**Affiliation:** Assistant Professor, Department of Forestry, Mississippi State university

**Heather Alexander at work in Siberia. Photo Credit: Parker Watson**

**Briefly describe your ongoing efforts/interest in ecological restoration.** Many of my recent efforts focus on restoring native thornscrub forests and coastal prairies of South Texas. Semi-arid thornscrub forests and coastal prairies provide habitat for numerous fauna, including the Federally-endangered ocelot and aplomado falcon. However, little of these habitats remain due to land conversion for human use. Over the last few years, I have been working in collaboration with Jonathan Moczygemba, a wildlife biologist with the U.S. Fish and Wildlife Service at Laguna Atascosa National Wildlife Refuge, to determine the best approaches to restore these ecosystems. To restore thornscrub forests, we are assessing the use of a variety of treatments that alleviate abiotic and biotic stressors, such as drought, herbivory, and competition with invasive grasses. To restore coastal prairies, we have been looking at mechanisms like prescribed fire and herbicide to remove native 'invasive' shrubs, such as mesquite and huisache, from these grasslands. Much of my work deals with the role of fire as a natural disturbance in maintaining ecosystem function.

I also work in oak forests of the eastern U.S., assessing fire as a management tool to restore these forests. A considerable portion of my work also looks at how increases in wildfire severity in northern forests of Siberia influences forest regrowth and forest ability to accumulate and store carbon in trees and soils. In general, I'm really

at our

**2015 Annual Conference**

**Scheduled for:**  
**November 13-15, 2015**

**On the campus of:**  
**Trinity University**  
**in**  
**San Antonio, Texas**

**TXSER Conference Info.**

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interested in understanding how human activities shift ecosystems from one state to another, the consequences of these shifts, and whether or not we can use restoration activities to reverse these human-driven changes.

**Describe your favorite outdoor activity:** I really like to hike, explore new places, and enjoy nature's beauty and serenity. There's nothing better than being outside and basking in nature's wonder.

**What is your favorite Texas plant and/or animal?** I have a deep admiration for the Texas ebony (*Ebenopsis ebano*). After working in South Texas, I truly appreciate this tree's beautiful, dark green canopy and cool, shaded understory. I also like how ebony creates a thick mat of litter beneath it and acts as a nurse tree by providing an understory microclimate that favors the establishment of other trees and shrubs.



**Texas Ebony (*Ebenopsis ebano*)**

**Photo Credit: Sally & Andy Wasowski, Ladybird Johnson Wildflower Center**

## **Monitoring More Using Photos - (Series)**

### **Part III: Landscape Photography**

**By: Charlotte Reemts, Research and Monitoring Ecologist, The Nature Conservancy, Austin, Texas**

Many of us are familiar with using aerial imagery to understand the places where we work. Sometimes we are also lucky enough to work at sites where historical photos of the landscape are available. Repeat photos at designated photo points are often used as part of a

monitoring protocol, but until recently these landscape photos (also called "oblique" photos) have been useful mostly for presentations or to get a "feel" for how a site has changed. Now, new analysis techniques are being developed to extract some quantitative data from these landscape photos.

Landscape photos pose several problems compared to aerial imagery. First, the angle of the camera to various points on the landscape varies, especially in topographically complex sites. Second, pixels in the background of the photo represent a much larger area on the ground than pixels in the foreground. Finally, it is difficult to get repeated photos that match exactly, and small changes in which direction the camera is pointing can make big differences in the resulting photograph.



**Photo 1: Independence Creek Preserve, Terrell County, TX.**  
**Photo Credit: Charlotte Reemts**



**Photo 2: Sandyland Sanctuary, Hardin County, TX**  
**Photo Credit: Shawn Benedict**

The first of the analysis techniques that I've investigated is to treat the landscape photo just like an aerial image (Michel et al. 2010). This analysis can be done using a raster-like approach (where the photo is divided into a grid and each square is assigned a cover class) or an object classification approach (where lines are drawn around each cover class). The object classification approach is best applied with software like eCognition; the grid approach can be done easily (if tediously) in ArcGIS. A variation of this method is to analyze only the background of the photograph to minimize the effect of changes in camera angle (Roush et al 2007): such changes will have a great effect on the foreground than the background.

Another approach is to sample the photograph. Clark and Hardegree (2005) developed a method where horizontal lines of pixels (equivalent to transects) are randomly selected and each pixel in the "transect" is classified. By selecting more transects in the background of the photograph, this method can correct for the larger area represented by the background pixels.

I am still in the early stages of trying out the different techniques. The analyses seem more defensible in areas where you have a wide view of a large landscape (Photo 1) and where repeated photos will capture most of the same view. However, even in sites with a limited field of view, some changes are obvious enough that

small discrepancies between the photos don't matter too much (Photos 2 and 3).

#### References:

Clark, P. E. and S. P. Hardegree (2005). "Quantifying vegetation change by point sampling landscape photography time series." Rangeland Ecology & Management **58**: 588-597.

Michel, P., R. Mathieu, et al. (2010). "Spatial analysis of oblique photo-point images for quantifying spatio-temporal changes in plant communities." Applied Vegetation Science **13**(2): 173-182.

Roush, W., J. Munroe, et al. (2007). "Development of a Spatial Analysis Method Using Ground-Based Repeat Photography to Detect Changes in the Alpine Treeline Ecotone, Glacier National Park, Montana, U.S.A." Arctic, Antarctic, and Alpine Research **39**(2): 297-308.



**Photo 3: Sandyland Sanctuary, Hardin County, TX**  
**Photo credit: Shawn Benedict**

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## Coordinator's Corner: Texas EcoSummits - The Tribe Has Spoken

**By: Gwen Thomas, TXSER Chapter Coordinator**

Teaming With Wildlife: True To Texas (TWW: TTT), a coalition of businesses and organizations concerned with wildlife conservation, held a series of EcoSummits across the State of Texas in Weslaco, Fort Worth, San Antonio and Houston. The goal of the EcoSummits was to bring together individuals and organizations from both public and private sectors to discuss wildlife conservation priorities for their ecoregions in order to build support for the Texas Parks and Wildlife Department's (TPWD) Texas Conservation Action Plan (TCAP). TXSER Members participated in all four of these gatherings with Board Members in attendance in both San Antonio and Fort Worth.

The following are a few observations from the Fort Worth EcoSummit. Rob Denkhaus, Natural Resource Manager for the Fort Worth Nature Center and Refuge and Director of TWW: TTT opened the EcoSummit, with a discussion of TWW: TTT's role in developing a "unified voice for wildlife conservation." He was inspired by Seth Godin's TED Talk "The Tribes We Lead" which emphasizes the shared ideas and values that allow ordinary people the power to lead and foster change. Denkhaus challenged us to take the messages from the day and return to the multiple and varied tribes to which we belong and spread the word about wildlife conservation priorities in Texas.



**Bobcat in White Rock Lake Park, Dallas, TX**  
**Photo Credit: DFW Urban Wildlife**

Denkhaus was followed by John Davis, Director of [TPWD's Wildlife Diversity Program](#). Davis delved into TCAP and TPWD financing. One might have heard a pin drop in the room when Davis explained that 97% of TPWD's Wildlife Diversity Program was funded through hunter-sourced funding streams, yet hunters make up only 3.8% of the users of conservation land - - a huge disconnect between those who use and enjoy the out-of-doors and those who pay for its protection. Davis challenged all of us to "put our thinking caps on" and take these concerns back to our respective "tribes" to help come up with new and creative means for funding wildlife conservation.



**Red Shouldered Hawk**  
Cedar Hill State Park, Dallas, TX  
Photo Credit: TPWD

The last speaker of the morning, Jack Tidwell, Urban Planner formerly with the [North Central Texas Council of Governments](#) and now an independent consultant, brought the discussion directly to the heart of the DFW area saying we must identify the "balance between what is urban and what is natural." Tidwell contends that we need to acknowledge the rapidly growing population of this area as well as the changing demographics. He argued that we must think about the "customers of tomorrow" - - what are their needs and what are their expectations -- and we need to develop "shared meaning across environmental divides."

And, that was just the morning. During the afternoon participants broke into 8 different working groups to discuss issues from the education of government officials, population growth and demographics to habitat loss, invasive species and smart growth. Assuming that each of the other EcoSummits were equally productive, TWW: TTT and TPWD have a lot of material to synthesize to move us forward as a unified voice for Texas wildlife conservation.

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## Upcoming Events

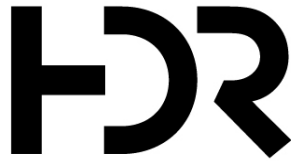
### Jurisdictional Waters Delineation Training Course

Whitenton Group  
October 5-9, 2015  
Mercer Arboretum & Botanical Gardens  
22306 Aldine Westfield Road, Humble, TX 77338  
For details & registration: [Jurisdictional Waters Delineation Training](#)

### Capit-O-Lize on Natives: Contributions, Challenges, Conservation

Native Plant Society of Texas 2015 Annual Symposium  
Plans include plenary speakers, 20 break-out sessions and 37 field trips.  
October 15-18  
Airport Hilton Hotel, Austin, TX  
For details & registration: [NPSOT 2015 Symposium](#)

## A Heartfelt Thanks to the Following Organizations for their Generous Support of our 2014 Conference!!



**Please Take a Moment to Click on the Above Logos  
& Check Out Our Sponsors' Websites.**

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 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](http://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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