Society for Ecological Restoration
Texas Chapter

Restoration Field Notes *June, 2014*

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TXSER Newsflash

We are pleased to include an article in this quarterly edition of Restoration Field Notes from TXSER members and restoration colleagues with the Edwards Aquifer Habitat Conservation Plan.

Please know that we are always looking for information to share with our readers about ecological restoration issues and events taking place around the State. Send us your announcements for local events, job openings, internships, and volunteer opportunities. If you have a project or essay that you would like to see highlighted in our newsletter or on our Facebook page or website, send along your ideas. We would love to learn about what you are doing and to share them with the rest of our readership.

All communications should go to our Chapter Coordinator, Gwen Thomas, at: info@txser.org. We look forward to hearing from you.

2014 Conference Update

October 17-19, 2014, Alpine, Texas

Central Texas Rep.
Ingrid Karklins

Coastal Texas Rep.
Mary Edwards

Chapter Coordinator
Gwen Thomas

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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

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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

Rio Grande near Terlingua, TX

Keynote Speaker Identified: Brandon Bestelmeyer, Research Ecologist with the USDA Agricultural Research Service, Jornada Experimental Range and co-PI of the Jornada Basin Long-Term Ecological Research site at New Mexico State University, will present the keynote address at our annual conference, on October 18th.

In his keynote presentation, Bestelmeyer will describe his work in dryland ecosystems from the Southwest United States to Argentina and Mongolia. He will challenge conference participants to consider restoration through the lenses of land potential, nonequilibrium and alternative states, and different ecosystem functions and services.

Friday Field Trips: October 17th

1. Grassland Restoration Techniques

Visit the historic O2 Ranch to observe multiple restoration techniques on severely degraded arid grasslands. Various combinations of herbicides, mechanical, and prescribed fire have been used on this site. Leader - Bonnie Warnock, Sul Ross State University. Requires high clearance vehicles; 2 wheel drive is fine. Full day field trip. Activity level = easy.

2. Restoring Riparian Habitat

Visit Big Bend National Park and the Terlingua Creek Project to learn about controlling invasive species and restoring riparian habitat in an altered river system. If time permits, we will visit a local grassland restoration project taking place on severely degraded rangeland. Co-Leaders - Joe Sirotnak and Jeff Bennett, Big Bend National Park. Requires high clearance vehicles; 2 wheel drive is fine. Full day field trip. Activity level = moderate.

3. Native Seed Sources of West Texas

Visit the Plant Materials Research Center for the development of native plant materials for restoration projects across the Trans-Pecos and West Texas. Analyze the performance of ongoing experiments with existing plant materials and discuss the role of

regionally developed plant ecotypes for restoration and commercialization. Leader - Colin Shackelford, Texas Native Seeds. Requires high clearance vehicles; 2 wheel drive is fine. Half day field trip. Activity level = easy.

More field trips are being planned. Please check our website for conference updates: **2014 Conference**

Edwards Aquifer Habitat Conservation Plan Project - Riparian Enhancement

By: Melani Howard
Habitat Conservation Plan Manager, City of San Marcos & Texas State University

The City of San Marcos and Texas State University have hired a local company - Heritage Tree Care - to accomplish riparian work from Spring Lake Dam to IH-35 along the San Marcos River. HTC is removing all non-native (concentrating on the invasive) trees, shrubs and vines. They use the cut trunks as part of the erosion control plan and mulch the remaining brush to cover open soil for the protection of new plantings. A combination of compost socks and terraces are used to control soil erosion along the steeper banks. Ligustrum has been the dominant non-native with Paper Mulberry dominating the south end of the river (above IH-35).

City Park. Photo Credit: Melani Howard

The remainder of the non-native invasive trees were Chinaberry and Chinese Tallow. A diversity of plant types (see list below) were installed providing a natural buffer along the river. Gravity-fed drip irrigation with timers will remain in place for the first two years. All plantings were completed by the end of April and maintenance includes pulling competing non-native species and replanting plants that didn't survive the transplanting process.

The City and University also hold volunteer planting days in the spring and autumn to fill in areas that were not budgeted. The public enjoys the opportunity to be involved and we are able to spread the message of why we are making the effort to increase the density and width of the riparian corridor with natives. HTC assists with all of the volunteer planting workdays along with the San Marcos River Foundation and the San Marcos Nature Center. The plants are provided by the San

Clear Spring. Photo Credit: Melani Howard

Marcos Aquatic Resource Center (SMARC); U.S. Fish and Wildlife Service employees gather seeds from natives along the river and grow them in their greenhouse at SMARC. HTC had a 90% transplant survival rate for woody species and 50% for small herbaceous herbs and grasses.

The establishment of a native vegetation buffer along the river is funded by the Edwards Aquifer Habitat Conservation Plan for the protection of riverine integrity and listed species. A dense wide buffer along the edge of a waterway enhances water quality and prevents bank erosion through infiltration of storm water runoff. This infiltration slows down the runoff and cleans out the pollutants carried by urban runoff. Associated with the riparian enhancement are six access point/bank stabilization sites placed at heavily used sites along the river, thus giving the public well-designed and safe access with the hope that these sites will be used instead of the natural river bank.

For more information on the Edwards Aquifer Habitat Conservation Plan, contact Melani Howard at: MHoward@sanmarcostx.gov

Dog Beach landscape pocket at new access point. Photo Credit: Melani Howard

Common Name:	Common Name:
Bald Cypress	Nimblewill
Sycamore	Buttonbush
Eastern Persimmon	Red Buckeye
Texas Ash	Bur Oak
Arizona Walnut	Bald Cypress
Mexican Plum	Shummard red Oak
Fragrant Sumac	Chinquapin Oak
Cedar Elm	American Plum
Red Mulberry	Honey Locust
Palmetto "Brazoria"	Fragrant Mimosa
Coral Bean	False Indigo
Mexican Olive	Swith Grass
Chinquapin	Inland Sea Oats
Carolina Buckthorn	

Prescribed Fires at the Wildland-Urban Interface: Policy and Citizen Concern

By: Ingrid Karklins
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College of Agriculture and Life Sciences, Texas A&M University, College Station, TX

Twelve of the eighteen most devastating wildfires in the history of Texas occurred in 2011. The Bastrop County Complex fire stood out as the worst in Texas history, destroying 1,649 homes (Breal et al., 2011). Two decades ago, urban homeowners did not recognize the potential danger of wildland fires (Gardner et al., 1987). Dramatic events such as the 2011 Texas fires led to a turning point at which people began to recognize the complex problems of ever-increasing wildfires in the wildland-urban interface. Decades of fire suppression policies led to a build-up of wildland undergrowth vegetation fire loads adjacent to urban homes, spelling disaster if ignited (Miller & Wade, 2003). It was clear that a change in fire policy was needed.

Flames from 2011 Bastrop Complex Fire creep toward house. Photo credit: photoblog.statesman.com/tag/central-texas-fires

Increasingly, homes are being built in the wildland-urban interface. In the 1990s, California, Oregon and Washington saw 61% or 1,039,344 units of new homes built in this interface despite the risk of fire (Hammer et al., 2007). While homeowners can fireproof homes and clear vegetation in a buffer perimeter around their homes, an effective way to prevent devastating fires is through natural resource agency fire management and routine prescribed burning in wildlands. Prescribed fires reduce property damage risk due to wildfires and restore balance to ecological systems (Winter & Fried, 2000). However, the public sees fire as a safety and legal liability (Toledo et al., 2012). As a result, fire policies favor caution and address secondary concerns such as smoke management in urban areas (Twidwell et al., 2013). This results in what has been called the "knowing-doing" gap (Costanza et al., 2013).

Resident uses shovels and garden hose to try to stop the fires from destroying his home. Bastrop, 2011. Photo credit: photoblog.statesman.com/tag/central-texas-fires

In the late 2000s few county officials or local fire departments in Central Texas endorsed prescribed burning. The Bastrop fires caused officials to take notice of the need for prescribed burns, and for burns on a more frequent, planned schedule. To manage fire, you need fire. However, local fire departments lacked prescribed burn training. In December 2012, the City of Austin Fire Department created a Wildfire Division (Harmon, 2013). Since then, the division has had two prescribed burns with the intent to both restore ecological balance to the burned areas and to offer firefighters training and skills in wildfire mitigation (Miller, 2013). Travis County and the City of Austin are

developing a Community Wildfire Protection Plan that they hope will lead to recognition as a Fire-Adapted Community (Austin, 2013).

Filling the gap between the fear of fire and the need for fire will take a good bit of public education and careful changes in training and policy, most effective on a local level, that hopefully will lead to public acceptance and public support of new practices and policies (DeBano et al., 1998).

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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:

RESTORE bi-weekly e-bulletin;
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**

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

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