

## **TPWD contract Botanist: Anna Strong**

For the last two years, Anna Strong has worked on a Section 6 grant involving one dozen rare plant species in need of a current status assessment. These species were selected because they are included in two large petitions for listing under the Endangered Species Act, submitted by WildEarth Guardians and the Center for Biological Diversity, two non-profits seeking to protect at-risk plants and animals and their habitats. Eventually, U.S. Fish and Wildlife Service (USFWS) will request that TPWD submit all known information on these Texas plant species for the federal status review process.

In preparation, Anna is composing status reports to summarize all known information for each species which will include descriptions of the populations she has recently visited. Her site visits were chosen from older locations (e.g. site surveys recorded as ten or more years old) documented in the TXNDD, and will update critical information such health, surrounding habitat, and potential threats for each species. Because more populations exist than time allows, sites were prioritized in order of most likely to find and ease of access onto the property. This means surveys were typically relegated to public land or land where the owner/manager is already known.

The newly updated data will facilitate Wildlife Diversity Program botanist, Jason Singhurst, in refreshing the current state conservation status rank (S Rank). The S Rank for a species is a numerical representation of how rare a species is within a particular jurisdiction, in this case Texas. The S Rank is one factor considered by USFWS in making decisions on whether or not to formally list a species under the Endangered Species Act. This Rank is also used by TPWD when determining which species are proposed for listing on the Texas Endangered and Threatened species lists.



Photo of Anna Strong with an Amsonia tharpii plant.

Fast forward to the field work and, lo!, a rare plant site is relocated! A "eureka site"! When the celebration ends, the real work begins. At each site with positive data, pictures are taken of the plant and its habitat. When new sites are located or if a site has not been seen in many years, voucher specimens are collected to deposit at the UT Austin Herbarium. The area is searched while simultaneously counting or "mindfully estimating" (it depends on the plant) the number of plants and the number of plants in fruit/flower. Then the area encircling the population is estimated (e.g. ½ acre, 1 meter<sup>2</sup>) and GPSed. Other data recorded include summarizing the habitat, recording current/potential threats, noting any management efforts, and documenting the dominant associated plant species. Any unknown dominant species are collected for positive identification. Unfortunately, the more typical scenario is an unsuccessful survey: the area is searched and the target plant species is nowhere to be found. These negative sites still require the same equipment, but this time the clipboard holds a shorter form. Just like "eureka sites", negative sites are recorded spatially with a GPS. The same data, as listed above, is also collected for these sites.

Once the fieldwork is complete, there is still work to do at the office. The field data for both positive and negative sites must be cleaned up and organized for submission to the TXNDD. Pictures and GPS points/tracks are downloaded, shapefiles are created, and attributes are added or cleaned up if necessary. Additionally, non-right-of-way (ROW) sites are mapped on aerial images to facilitate relocating these populations in the future. All of this is compiled and submitted to the TXNDD staff.

To fulfill the requirements of this Section 6 funding, data collected through fieldwork and literature review are summarized and included in the status report for each species. When the time arises for USFWS to review the federal listing statuses of these plants, their status reports will facilitate that process by having the most up-to-date information summarized and readily available for both TPWD and USFWS biologists.

Anna's work epitomizes the ideal process for adding rare species data to the TXNDD for conservation of species and their habitats. By systematically collecting specific details at every survey site, Wildlife Diversity taxa biologists can update the S Rank, ensuring that species considered more common than previously known are not added to the Federal or State threatened and endangered lists. For those species determined as rare and in need of conservation action, information like that collected by Anna will help to prioritize populations that are likely to benefit the most from conservation efforts. Understanding which populations are thriving and those which are in decline helps to determine the proper conservation strategy. Without the valuable information gathered by dedicated biologists like Anna, the job of conservation becomes much more difficult, and rare species are more likely to be listed.

## **Conservation Initiatives Specialist: Meredith Longoria**

Meredith Longoria is responsible for designing and implementing programs that provide for conservation and restoration of nongame, rare and at-risk wildlife species populations and their habitats across the State of Texas. Her job includes coordinating with TPWD staff, state and federal land managers, private landowners, and others to make habitat conservation recommendations and plan projects consistent with implementation of the Texas Conservation Action Plan (TCAP). Her duties include providing training and technical guidance regarding these rare and at-risk species to wildlife biologists, landowners, and others. As an example, Meredith has been working with TPWD and U.S. Fish and Wildlife Service staff to develop a Programmatic Safe Harbor Agreement for the Houston toad over the last several years, and is currently in the process of finalizing the agreement.

In January, Meredith provided training to Wildlife Division staff, in the Piney Woods ecoregion of East Texas, on identifying and documenting high-priority Species of Greatest Conservation Need. She has similar trainings planned for the Wildlife Division staff in the Post Oak Savannah/ Blackland Prairies ecoregions as well as for staff in the Gulf Coast Prairies and Marshes and South Texas Plains ecoregions this spring. She plans to provide similar trainings to staff in the four remaining Wildlife Districts within the next year.



Meredith eating pie while waiting for Red-cockaded Wood peckers to come in to their roost trees, Angelina National Forest, TX.

In addition to staff training, Meredith has several outreach programs on her calendar where she will introduce some of the conservation tools available to landowners and land managers through the Endangered Species Act. Recently, she delivered a presentation to the Alum Creek Wildlife Management Association, in Bastrop County, on the development of the Houston toad Programmatic Safe Harbor Agreement. On February 28<sup>th</sup>, Meredith will give a presentation on *Perspectives on the Endangered Species Act for Landowners – Facts, Fears and the Future* at the "Managing Your Land for Wildlife Workshop" in Spring, TX. Stay tuned for a presentation near you!

## **TXNDD Database Manager: Laura Dugan**



to TPWD from the Ecology, Evolution and Behavior Department at the University of Texas at Austin (UT) where she earned her doctorate investigating the impacts and distribution of a potentially invasive fish in northern Mexico. During her tenure at UT, she was also very active in outreach helping to organize the graduate student-run Science Under The Stars lecture series and working with 4<sup>th</sup> grade and high school science classes as an NSF GK-12 fellow. In her free time, she is an avid runner and an outdoor enthusiast. In the coming months, Laura will be working on various herptile and bird projects as well as answering information requests.

Laura Dugan is a new Database Manager for the Texas Natural Diversity Database. She comes

Photo of Laura conducting her dissertation fieldwork, Cuatro Cienegas, Mexico.

## Executive Director Carter P. Smith

Editor, TXNDD Report Stephanie L. Shelton

> TEXAS PARKS & WILDLIFE

Life's better outside.

COMMISSION Dan Allen Hughes, Jr., Chairman Beeville Ralph H. Duggins, Vice-Chairman Fort Worth T. Dan Friedkin, Chairman-Emeritus Houston

Roberto de Hoyos Austin Bill Jones Austin James H. Lee Houston Margaret Martin Boerne S. Reed Morian Houston Dick Scott Wimberley Lee M. Bass. Chairman-Emeritus

Fort Worth



"To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations." For information on what we track, data requests, and data submission: http://tpwd.texas.gov/huntwild/wild/wildlife\_diversity/txndd/ Bob.Gottfried@tpwd.texas.gov 512-389-8744

TEXAS PARKS AND WILDLIFE DEPARTMENT MISSION STATEMENT

 Sandy.Birnbaum@tpwd.texas.gov
 512-389-8729

 Stephanie.Shelton@tpwd.texas.gov
 512-389-8723

 Laura.Dugan@tpwd.texas.gov
 512-389-8731

FOR MORE INFORMATION All inquiries: Texas Parks and Wildlife Department, 4200 Smith School Rd., Austin, TX 78744, telephone (800) 792-1112 toll free, or (512) 389-4800 or visit our website for detailed information about TPWD programs: www.tpwd.texas.gov

©2015 Texas Parks and Wildlife Department PWD LF W7000-2060 In accordance with Texas State Depository Law, this publication is available at the Texas State Publications Clearinghouse and/or Texas depository Libraries.

TPWD receives federal assistance from the U.S. Fish and Wildlife Service and other federal agencies and is subject to Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age program, activity or facility, or need more information, lease contact Office of Diversity and Inclusive Workforce Management, U.S. Fish and Wildlife Service, S272 Leesburg Pike, Falls Church VA 22041.