

Friends of Friedrich Wilderness Park Report November 2, 2011

The recent rains have caused a surge of new growth across the Natural Areas. But as winter nears and fall sets in, the new green leaves will soon turn colors and fall to the ground. As they do, small balls begin to appear in some trees like oak trees. These balls are actually galls and, in oak trees, are called oak galls. The story behind galls is quite curious. Often times mistaken for seeds or fruit, oak galls are formed by wasps in the Cynipidae family. These wasps, called cynipid wasps, lay their eggs in the stems, leaves, and buds of the oak tree. Of the 2,000 insects known to cause galls in the United States, one third of them belong to the Cynipidae family (Biology and Control of Mealy-Oak Gall by D. L. Morgan and G. W. Frankie. Journal of Arboriculture 8 (9); September 1982). The gall is formed when a chemical disrupting the phytochrome activity in the plant is secreted by the female wasp as she oviposits (Morgan and Frankie 1982). This chemical is also secreted when the larvae begin to feed in the tissue (Morgan and Frankie 1982). The eggs develop into larvae and the tissue of the tree where the eggs were laid grows around the larvae, providing them with food and protection from the elements and from predators (ISA 2011). Once the larvae have finished growing, they rest inside the gall as pupae. They finally emerge through a tiny hole as adult wasps. Not much is known about these wasps once they leave the gall other than that they are tiny and do not live long (ISA 2011). There are other things that can cause galls like bacteria, fungi, nematodes, and mites but, for the most part, galls do not harm their host plants (Morgan and Frankie 1982). One of the more common galls we see in this area is the oak apple gall on our red oaks. These galls are caused by a wasp called *Amphibolipis confluens* and are usually found in the veins or petioles of the leaves of these trees (Morgan and Frankie 1982). The curiosity does not end there as these oak galls are rich in historical significance. Oak galls contain tannins and when mixed with iron salts and water, make gall ink which has been used for over 1700 years (ISA 2011). The United States Constitution, da Vinci sketches, and even early biblical texts were all written using this oak gall ink (ISA 2011). Tannins from galls have historically been used for dyeing wool and for lamp fuel as well (Morgan and Frankie 1982). So, as you venture out into the Natural Areas this fall and winter, know that there are more than just bare branches in the canopies of some of our oak trees.

Ecosystem Notes

Staff and volunteers observed the following birds: western scrub jay (*Aphelocoma californica*), black-crested titmouse (*Baeolophus atricristatus*), Carolina chickadee (*Poecile carolinensis*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), greater roadrunner (*Geococcyx californianus*), ladder-backed woodpeckers (*Picoides scalaris*), Carolina wrens (*Thryothorus ludovicianus*), eastern phoebe (*Sayornis phoebe*), northern cardinals (*Cardinalis cardinalis*), turkey vulture (*Cathartes aura*), rufous-crowned sparrows (*Aimophila ruficeps*), chipping sparrows (*Spizella pallida*), red-tailed

hawk (*Buteo jamaicensis*), great blue heron (*Ardea herodias*), ruby-crowned kinglet (*Regulus calendula*), yellow warbler (*Dendroica petechia*), black-throated green warbler (*Dendroica virens*), Wilson's warbler (*Wilsonia pusilla*), Baltimore oriole (*Icterus galbula*), and lesser goldfinch (*Carduelis psaltria*).

Staff also observed rock and fox squirrels (*Spermophilus variegatus*) and (*Sciurus niger*), respectively.

Staff and volunteers have enjoyed the following that are currently blooming; Grasses: love (*Eragrostis intermedia*), Indian (*Sorghastrum nutans*), slim tridens (*Tridens muticus*), tall grama (*Bouteloua pectinata*), red grama (*Bouteloua trifida*), blue grama (*Bouteloua gracilis*), side oats grama (*Bouteloua curtipendula*), little bluestem (*Schizachyrium scoparium*), green sprangletop (*Leptochloa dubia*), poverty dropseed (*Sporobolus vaginiflorus*); wildflowers: slender stem bitterweed (*Hymenoxys scaposa*), *Palafoxia callosa*, blazing star (*Liatris mucronata*), parralena (*Dyssodia pentachaeta*), black foot daisy (*Melampodium leucanthum*), *Zexmenia hispida*, gray vervain (*Verbena canescens*), Navajo tea (*Thelesperma simplicifolium*), white evolvulus (*Evolvulus sericeus*), Lindheimer's senna (*Senna Lindheimeri*); and evergreen sumac (*Rhus virens*).

Friedrich Wilderness Park

Volunteers and staff finished "sprucing up" the landscaped areas near the office, in the outdoor classroom, and in the public parking area. This same group also sowed wildflower seed in the meadow in front of the public restrooms. They were careful not to seed any areas that will be affected by the entry area construction. We need to recognize Lottie Milsap's dedicated work in the Naturescape in the picnic area. This year in particular, she and her fellow workers are responsible for saving many of the plants and trees from the extreme drought and heat.

Staff made site visits with the 4 contractors bidding on mechanical woody species "removal" at WH-West. With this first contract, staff expects most of the woody species on about 32 acres will be cut. While all the juniper that is cut should die, other cut woody species will grow back, and this may help create new black-capped vireo habitat in some places. Other expected results include improved golden-cheeked warbler habitat quality and restored savannahs. This will be the NA's first experiment with mechanical woody species removal; until now all work has been done with chainsaws and hand tools.

Rest assured that staff will work closely with the chosen contractor to be sure that vegetation manipulation goals are met with a minimum of impact to soils, "keeper" trees, and non-targeted areas.

Staff continues to monitor karst features that are occupied by endangered species. Goals are to check for human disturbance, fire ants, and changes in the vegetation community, especially within about a 10 m radius of the opening of

Breathless Cave. Staff completed the Fall survey and reported no fire ant activity, no evidence of new human disturbance, and except for drought effects, no major changes in vegetation community composition or structure.

We finally had substantial rain, but it came down all at once; 6.5 inches at Eisenhower Park in one 30 hour period; Friedrich and Crown Ridge received at least 5. With recent attention to FWP trails, they faired very well. Eisenhower needed substantial work. Crown Ridge was the worst yet due to base material pouring over the walls and into the park from the development above. Parking lot break-ins continued into September. We are looking at video surveillance camera installation.

Staff has installed a temporary horizontal cedar log fence in the area between the parking lot and trail entry sidewalk to discourage foot traffic through the landscape until construction begins on the new entrance system.

Thomas Paine has filled the Crew Leader II position left vacant from Janis Merritt's retirement, and Janis has graciously agreed to share her knowledge of Crownridge and Rancho Diana with him.

Construction documents for the TPWD grant-funded improvements are expected this week. This will allow review by TPWD and then proceed to contracting.

Rancho Diana

Hand-watering continues on newly planted trees as well as those planted last year. Staff and volunteers removed KR Bluestem (*Bothriochloa ischaemum*) from beds near the white house. Native grasses and wildflowers seeds were sown in these beds. Bluebonnets as well as other seedlings have germinated. We hope to see numerous wildflowers in these beds by spring time.

Roof repairs have been completed on the Pond House and the "White House" and electrical rehab has been done for the Pond House. It remains to have the old fixtures rewired and mounted again.

Because of extreme fire hazard conditions, restoration work has been limited to hand clearing, eliminating the danger of fires from chainsaws and vehicles.

Eisenhower Park

Staff and volunteers trimmed back trees and other landscaping material close to parking spaces and weeded beds in the parking lot. More work will be completed in November. Staff also sowed more wildflower seed within the fenced area next to the restrooms. Staff and volunteers are working diligently to keep this area watered.

An official Fire Ban is now in place (2 days before the rains came). The first of 4 Eagle Scout projects is underway. This one and 2 more will see the old

wayfinding signage replaced with the Natural Area standard 8 x 8 post with ADA logo, trail difficulty level, exit arrows, and mileage. Another project will include 3 new benches in the landscape near the restrooms and a horizontal post fence in front of the Screech Owl meadow. The fence is to discourage public from using an unauthorized trail through the meadow.

We have received the long-awaited TCEQ approval on the potable water system. Trail repairs continue.

Crownridge Canyon Natural Area

Volunteers and staff sowed wildflower and native grass seed in the meadow just inside the drive in gate. While sowing seed sounds like an easy task, volunteers also did the raking and “stomping” that is necessary to assure good seed to soil contact. (They did this same raking and stomping wherever they sowed seeds at FWP.)

Staff and FoF Board member Val Sponsel tried to solve the mystery of how a catfish got to Castle Bridge during the heavy rain event in mid-Oct. Best guesses are that the fish was washed down from a pond uphill above the CCNA property.

Park Operations Supervisor Don Pylant said fish have appeared like this before at CCNA after a major rain.

In accordance with NA agreement with USFWS, Staff continues to monitor karst features that are occupied by endangered species. One part of the agreement requires that NA staff check for fire ants in the area within about a 10 m radius of the opening of CCNA Cave. Checks are only done when environmental conditions are right for fire ant activity. The Fall survey was done and there were no fire ants observed. Staff also checked for human disturbance and found sediment trails from the housing development above as well as a few trash items (beer bottles/cans, balloon). Vegetation was drought affected and there may be some new johnsongrass and KR bluestem close to CCNA Cave (grass was very short at the time of the Fall check, so staff will return to check this again).

Contractors have done an outstanding job of prep and painting the pavilion and kiosk. Walls and fiberglass has been power washed. Overall, the pavilion looks brand new.

Staff Notes

Staff had the pleasure of attending the TxSER meeting held September 23-25, 2011 in Killeen, Texas. Staff toured Fort Hood’s black-capped vireo and golden-cheeked warbler management areas and learned techniques used by Fort Hood to maintain their habitat. This was also an opportunity to meet with our professional peers and network. The staff thanks the **Friends of Friedrich** for approving and funding our registration expenses.

Peggy Spring received the well deserved Outstanding Environmental Educator Award from Texas Assoc of Environmental Educators for her phenomenal educational programming. The reports speak for themselves.

EDUCATION

Field Tours and Special Events (including Wild Week)

1 Field trip: Canyon Ridge Elem teachers/Stone Oak Park 23 participants

This is a continuation of a collaboration with this school where we have provided resources and teacher field trips to the park since 2008. They have developed a curriculum that uses the park 3 times per year for each student.

Project WILD training Eisenhower Park 168 participants

We have collaborated biannually with UTSA on this project for their pre-service teachers since March of 2005.

10 Explore programs: 8 FWP, 2 EP Topics: Ants, Water/rivers 252 participants

Our Explore programs that target Homeschool families continue to be enormously popular! We began these programs in the fall of 2005

Birthday Party – CCNA 13 participants

What fun when a child has been on a field trip with us and asks to have his birthday party at the Natural Area with a field guide! Move over Chuck E. Cheese!

Science Day in the Park – Crestview Elementary (Live Oak Park) 173 participants

This was our third year to be asked to participate in this exciting event where this school takes every student to the city park for a morning of nature presentations.

Total Education participants in Sept/Oct: 766 youth and adults

Miscellaneous

Peggy Spring, Education coordinator, has been selected to the on the Education Advisory committee for the Sustainable Energy Research Institute at UTSA. At a meeting on October 21 the Sustainable Energy Alliance for South Texas was introduced. This consortium of partners in energy research and environmental education will be a clearing house for sharing research and education efforts in this field.

On October 25, Peggy attended a workshop on building Environmental Education Capacity in urban areas. This project led by Cornell University seeks to bring educators together from traditional environmental education and nontraditional urban backgrounds to exchange ideas and resources, and form social networks. Our input will be to continue to do some outreach to and support of local urban environmental efforts with the goal of ultimately getting some of the participants to a Natural Area to extend the experiences in environmental education that they need to have in their daily lives.

Natural Areas education coordinators continue to be active in the development of the Texas Children in Nature network which seeks to connect children with many opportunities to access environmental education and nature experiences.