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August 3 Chapter Meeting – Important Update

Note: In an abundance of caution, we decided to postpone Edgar Miller’s in-person presentation on “Getting the Most out of Your Smartphone Camera for Nature Photos” and will reschedule it for a chapter meeting in the near future.

Instead, on August 3 we will be holding a Zoom meeting on “Native Bees in Your Landscape – Nature’s Little Preppers”, presented by Carol Clark. Social time starts at 6:30 pm and the presentation starts shortly after 7:00 pm.

Please register in advance for this Zoom Meeting. After registering, you will receive a confirmation email containing information about joining the meeting.

Carol is a Texas Master Naturalist, long-time member of NPSOT, Chair of the Bring Back the Monarchs to Texas committee of NPSOT, and a Monarch Watch Conservation Specialist. She is also a co-administrator of the Texas Native Bee Co-op Facebook page. When she’s not teaching others about pollinators or native plants, she enjoys looking after her own colossal Monarch Waystation and private wildlife refuge in Cooke County. She is a frequent speaker on conservation topics around the state.

Less well known than European Honeybees, Texas’ native bees are nevertheless vital components of a healthy environment, and can provide a new dimension of enjoyment in your home garden. This program will cover basic information on the current challenges all bee species are facing, and the tricks they use to survive natural challenges in Texas’ extremes. Learn why they are important to all of us, facts about gentle solitary native bees and their lifestyles, and photo examples of the many beautiful forms and colors of native bees. We will include tips on what to plant and provide to attract them to your home landscape and help them survive there, and basic identification hints. We’ll discuss simple homemade native bee nest sites and find out how to participate in nationwide citizen science tracking efforts.
A Call for Action

by Valerie Dalton, President, Collin County Chapter, NPSOT

“Our mission is promoting research, conservation, and utilization of native plants and habitats through education, outreach, and example.”

Betsy Farris, former Collin County NPSOT Chapter President and longtime member, scanned paper copies of our chapter’s newsletters from January 1994 through February 2001. She believes February 2001 was probably the last mailed newsletter. Her efforts are just one example of how much our chapter means to her. Thank you, Betsy! As a result of her dedication, I recently had the pleasure of reading through these gems from the past. They have been uploaded to DropBox and will eventually be loaded onto our website.

Another Wasowski book *Requiem for a Lawnmower* was published in 1992, with a second edition released in 2004. The notes describing the second edition’s release mention the extreme drought of 2002 and the belief that people were quickly recognizing that the typical American landscape is not only boring, it works against Mother Nature.

*Requiem for a Lawnmower* closes with a brief essay titled, “To Save the Planet, Save the Plants”. Sally’s concluding visionary message was this:

“We are all interdependent; if we lose one species, it affects us all, perhaps in ways that we do not yet understand or appreciate. It is not enough that we recognize that individual animal species are threatened; we must appreciate the relationships that exist among all species, both animal and plant. They overlap and intertwine in ever-widening circles to ultimately encompass the whole earth.”

Another of Sally’s sentences particularly resonates with me: “Sometimes this strikes me as being so obvious that I feel self-conscious even going on like this.”

Then I ask myself, have landscaping practices changed significantly in the past 30 years? The sights and sounds all around us lead to a disappointing answer. But I confess, the greatest changes in my practices only occurred after 2018 when I became a Blackland Prairie Master Naturalist, read Doug Tallamy’s writings and began hearing presentations by folks like Carol Clark. Education is key.

Sally and Andy Wasowski were visionaries alongside folks like Benny Simpson, Carroll Abbott and others who began The Native Plant Society of Texas over 40 years ago. At that time, they said “We’re waking up to the fact that we’ve been bad stewards of our planet.” Their insight is evident as today we are called to action by the daily reports on the news of climate change, loss of habitat and extinction of keystone species. Governments and even HOAs are recognizing the need for change. Some of this may be called greenwashing, but that just points to the fact that people are recognizing that even if they aren’t ready to act, the need for action is there. Recently, Carol
Clark, Rodney Thomas, Rick Travis and I met with volunteers from the board of a nearby utility district. They are enthusiastic and working hard to preserve and restore nature at a 360-acre park under their jurisdiction. Conservation is key.

When I find myself feeling down, I take a break and walk around observing the nuances of nature and return revived, with a renewed sense of awe at the intricacies and complexities of nature. I am grateful for every person who discovers the joy of native plants and the many creatures who depend on them. As Carol Clark has said, “We are making a difference, one garden at a time.”
**Native Plants of North Texas’ Bottomland Hardwood Forests**

by Tim Castelli

Prairies are not our only ecosystem here in North Texas. Another vital ecosystem, albeit much smaller in scope, is Bottomland Hardwood Forests. In the U.S., they are one of our most widely distributed and biologically diverse ecosystems.

**What is a Bottomland Hardwood Forest?**

There are a variety of definitions of these forests, and the areas they encompass. A common definition states the following three characteristics:

1. Periodically inundated or saturated by surface or groundwater during the growing season.
2. Soil saturation occurs periodically within the root zone during the growing season.
3. Common tree species in the area have morphological and/or physiological adaptions, which allow them to survive in an environment where the soils may be depleted of oxygen.

Bottomland forests are a transition area between more arid upland hardwood forests or prairies and very wet river floodplains and swamps. They can withstand some flooding but are unable to tolerate extended flooding like a swamp.

**Benefits to our Environment**

These are vital ecological areas offering many benefits, including flood and erosion control, wildlife and plant diversity, and groundwater recharge.

The Bottomland Hardwood Forest’s environmental benefits derive from its highly dynamic ecosystem due to adaptations developed over millennia. It is a delicate balance of water, soil, air, plants, and wildlife interacting through seasonal cycles. These fluctuations require adaptive plants and wildlife to thrive in sometimes challenging conditions.

However, its characteristics have also made it susceptible to logging, water control projects, agriculture, and land development.

**Geographic Distribution**

There are not only differences in its definition, but also in the range of the Bottomland Hardwood Forest. We will be focusing on the forests of the southeast U.S., which encompasses the eastern third of the state, including here in North Texas.

As shown nearby in the darkened areas of rivers, we occupy the farthest western reaches of this range due to the Trinity River and Red River basins. The aridity of areas to our west prevents further bottomland forests.

Source: USDA Forest Service
Topography of the Bottomlands

A fascinating element of the Bottomland Hardwood Forests is the topography that developed over millennia. Changes in a river’s water level are responsible for the creation of these distinct zones. In some cases, the zones can be only a few feet apart, but the soil and water conditions can be vastly different, resulting in drastic vegetation change.

However, the arrival of European settlers brought water control projects that have disrupted these zones. As a result, flood control and reservoirs have greatly altered these zones and reduced the scope of most forests.

Below is a cross-section of the forest broken into typical zones and a brief description of each:

Native Plants of the Bottomland Hardwood Forests

The periodic flooding and resulting lack of oxygen in the soil prevent upland plants from establishing. But trees, woody vines, and other plants adapted to the soggy conditions can thrive.

A detailed listing of native trees and plants in North Central Texas’ Bottomland Hardwood Forests is provided by the Preservation Society for Spring Creek Forest in Garland (note: listing includes invasive species).

Location of Bottomland Hardwood Forests in North Texas

Finally, understanding these magnificent forests is best done in person. Below is a partial listing of forest remnants, both in near-virgin and lightly disturbed conditions, in and around Collin County:

- **Great Trinity Forest** (Dallas) – By far, our largest stand of Bottomland Hardwood Forests is within the Trinity River Corridor in southeast Dallas. It is one of the largest urban bottomland forests in the U.S., encompassing nearly 5,000 acres.
- **Lewisville Lake Environmental Learning Area (LLELA)** (Lewisville) – Much smaller in scope is an area within the LLELA that borders the Blackland Prairies to the east and Cross Timbers to the west. The forest is fed primarily by the Elm Fork of the Trinity River.
- **Spring Creek Forest** (Garland) – Highly diverse forest with over 650 species of plants and animals. Located within the flood plain of Spring Creek, it includes near-pristine sections of forests.
- **Ray Roberts Greenbelt** (Denton) – Remnant portions of bottomland forest exist in the Greenbelt south of the lake, fed from the Elm Fork of the Trinity River.
- **Oak Point & Bob Woodruff Parks** (Plano) – Small remnants of disturbed bottomland forests, fed by Rowlett Creek.
I am laying here in the Medical City McKinney new inpatient rehabilitation building, recovering from a hip replacement. I was walking our 11 month old, 95 pound German shepherd puppy, Boomer; I tripped; he looked up at me with a “Daddy’s gonna’ KILL me” expression and took off to save himself. I didn’t let go of the leash and he twisted me just enough to break the top of my femur in 3 places. As I got my bearings, he had crawled up to me with a “Can I help?” expression. I yelled “You could have sacrificed yourself to give me a softer landing!”

I find time between physical and occupational therapy session (OUCH!). I’m looking at a bunch of lost opportunities. As I was leaving the Master Gardener Association, and before I joined NPSOT, I started talking with the (then) Gardens’ Director at the Heard Museum, Roger Sanderson, about me using my computer drafting software to update (and/or create) good drawing of the Heard Gardens.

It seemed to be a good idea and he gave me copies of the hand-drawn layouts. I was talking to some Master Naturalist friend and they asked if I could include an accurate map of the various trails. (With my new, sore hip, I’m NOT going to walk the trails with a GPS locater to accurately locate key intersections!)

So, here I was: no organization links (for me) and just as I got started, the Heard had some problems and Roger parted ways.

Hey, I’m a nerd, so I downloaded satellite images (for several different years) and topographic studies, as well as literature from the Heard website. I worked alone until other projects distracted me away. It’s a little sad to look at what I have, and how much I had left to do, and see I’ve ignored it for 8 years.
It’s amazing how many different satellite images, and over how long of a span of time, are available.

As a Master Gardener, I can boast that I helped plant a lot of that greenery.
Heard Native Plant Garden

Hardscape Drawn to Scale

Topographic Map
I have so much more – somewhere. Oh, soooooo many different computers and so many different backups to go through.

But, right now I’m just laying here in bed, in the middle of the night, trying to rest my muscles enough to be able to work through the 3+ hours of Physical Therapy planned for tomorrow.

So, Good Night.

John Worley