Lost Pines Chapter

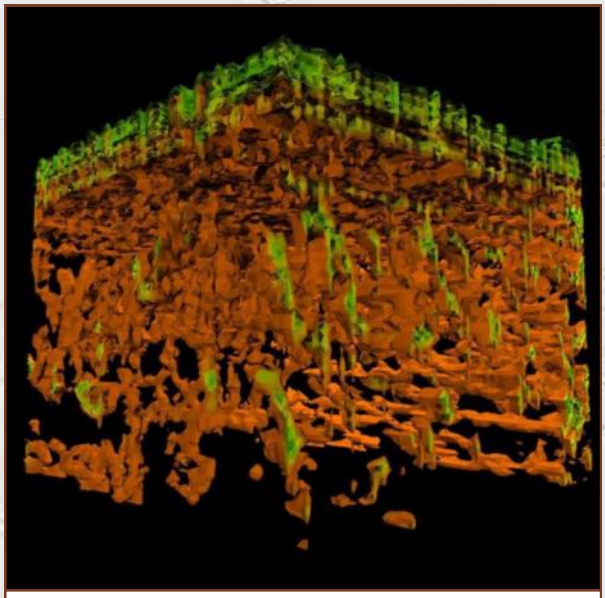
Texas Master Naturalist

July/August 2014 Volume 13, Issue 5

Ancient Farmers

by Larry Gfeller

You are a citizen of a progressive, highly evolved underground society, living on a planet unrecognizable from ours, in a modern metropolis of tunnels and passageways, complex and vast. Life is organized down to the smallest detail. Daily routine is fixed. Everyone is sorted at a young age by function and caste. Each has a job to do and they are expected to do it until retirement. In this advanced society, sex is reserved for only the strongest, most fertile to ensure the purest gene pool passes from generation to generation. Some are selected to stay below and run a communal nursery 24/7. Some citizens are given responsibility to maintain the roads and highways and keep the environment clean and safe for habitation. Others hunt and gather needed resources, often enduring long exhausting daily commutes. Still others are tapped to defend the state from enemies, a formidable and effective defense force. There is a sprawling communal garden, tended by workers with the most specialized farming techniques and medical technology. They produce a healthy and nutritious food supply, free from disease and pestilence.



Ground Penetrating Radar scan of an *Atta texana* colony in east central Texas by Carol LaFayette, Visualization Department, Texas A&M University College of Architecture, Bugwood.org

Vision of a supreme Aryan-Nordic master race, a paragraph lifted from some science fiction novel, or an excerpt from an ancient utopian treatise? No, this is not the stuff of imagination, it's real . . . and it happened right here on this earth, but it would be 45 million years before the first *Homo sapiens* would walk upright on the land. It was a moment in closed time, a dream of ecstatic paralysis, a phase of creation in which the trees waited impatiently to take on color, sound, texture. It was a time of steamy wetlands, high temperatures and volcanic eruptions when the earth—apart from the driest deserts—was covered with forests from pole to pole. North America, Europe and Asia were still one connected land mass. Life on earth today is, of course, much different, but this description of life under the earth—even today—remains unchanged. Welcome to the world of leafcutter ants!

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In This Issue

Farmers, cont.

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Little known fact: Leafcutter ants are the most dominant herbivore of the New World tropics, consuming some 20% of known vegetation. It should not, therefore, be surprising that most species of leafcutter ants live in the South American and Caribbean rain forests. But not all. We Texans have been blessed with our own species, *Atta texana*, the northernmost migration of the genera, today found in Texas and Louisiana. The life source for leafcutters is a fungus rich in proteins and sugar. This fungus is carefully tended underground. Despite popular belief, leafcutters do not eat the plant material stripped from their favorite shrub or tree; rather, they supply it to this fungus so it can continue to grow and nourish the colony. It represents one of the oldest symbiotic relationships in the natural world.

Leafcutter ant foraging party

Bacteria-laden worker

What goes on deep inside the nest is astounding. The farmers of this fungus garden are special. They, and only they, are covered with a white waxy material, which is actually many thousands of bacteria . . . the same bacteria used to produce half the antibiotics known to man. They use these bacteria to create a defense against black mold and other threats to their agriculture. Leafcutters are said to be the most complex animal society on the planet, next to humans. Yet, leafcutters have been protecting their food from disease through antibiotics for over 50 million years—something man only discovered some 70 years ago!

The nest structure is an architectural marvel. Colonies may cover more than half an acre and sometimes threaten the integrity of roads or farmland. They are marked by many crater-like mounds of loose soil slanting inwards toward a center entry hole. As much as 8 feet below the surface, the fungus garden grows in its own protective chamber. And there are other chambers. There are chambers for storage of waste material, there are chambers where waste is processed by workers (retirees) until it is neutralized and sanitized. Vertical tunnels extend to mound openings and lateral foraging tunnels may lead outward 500 feet away. Fresh air is drawn in through peripheral tunnels to maintain proper ventilation. Stale air and heat produced by metabolic processes is vented through central passageways above the garden. These chambers are protected from flooding by a system of lower passages. There are other chambers not yet fully understood. Some large chambers may reach 25 feet deep. During hot dry periods or extreme cold, the ants retreat to these inner chambers to escape the elements, even plugging the entrances when things get really bad.

Leafcutter ant mounds—Photo by Josh Blanek

Like all ant civilizations, leafcutter survival depends on the queen. Despite their biological success, getting a successful colony started is tough. Only a small percentage of fertilized queens establish a long-lived nest. Before leaving home to mate, the young queen takes a piece of

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What's Blooming?
by Liz Pullman

It was Saturday, May 17th, and the Bridge Maniacs were busy on a scheduled work day at the Estes "Park," a few miles south of Lockhart. Miriam Vaughn and I took this opportunity to survey plant life on the 70+ acres while the actual work crew trimmed and cleared trails. After a whirlwind motorized survey with Jim Estes, his golf cart was turned over to Miriam and me and we experienced one of the classiest botanical surveys ever. Both of us are accustomed to walking and had our doubts about the cart, but it can be driven slowly, is easy to park, has a roof for shade, is open to the breezes and has a storage area for knapsacks, field guides, cameras and water!

Three outstanding areas of this property come to mind: An extensive stand of Chickasaw plum trees (*Prunus angustifolia*) with plums already showing their red color; second, a low-lying area down a side trail which was snowy white with an extensive colony of rain lilies (*Cooperia pedunculata*); and third, the general abundance of milkweeds - Antelope horns (*Asclepias asperula*), and tons of two milkweed vines -purple milkweed vine (*Matalea biflora*) and pearl milkweed vine (*Matalea reticulata*). Indeed, Estes "Park" is rife with many species of vines, ten identified and several not yet identified.

Following is a partial list of the Estes plants, some just past blooming, some blooming and some still in bud.

Pearl milkweed (*Matalea reticulata*)


Chickasaw plum tree (*Prunus augustifolia*)


Dogbane vine (*Trachelospermum asiaticum*)

Common Name	Scientific Name	Modern Family Name
agarita	*Berberis trifoliata*	*Berberidaceae*
antelope horns	*Asclepias asperula*	*Apocynaceae*
Arkansas doze daisy	*Aphanostephus skirrhobasis*	*Asteraceae*
basket flower	*Centaurea Americana*	*Asteraceae*
bitterweed	*Helenium amarum*	*Asteraceae*
bracted plantain	*Plantago aristata*	*Plantaginaceae*
Carolina snailseed	*Cocculus carolinus*	*Menispermaceae*
Chickasaw (Cherokee) plum	*Prunus angustifolia*	*Rosaceae*
common dewberry	*Rubus trivialis*	*Rosaceae*
cut leaf daisy	*Engelmannia peristenia*	*Asteraceae*
dogbane vine	*Trachelospermum asiaticum*	*Apocynaceae*

(Continued on page 4)

Blooming, cont.

(Continued from page 3)

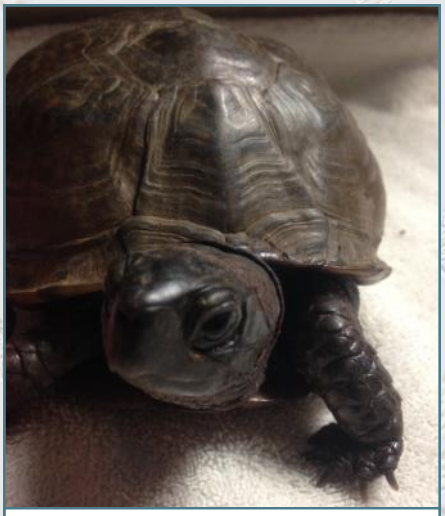
eastern persimmon	*Diospyros virginiana*	*Ebenaceae*
Engelmann's sage	*Salvia engelmannii*	*Lamiaceae*
fire wheels	*Gaillardia pulchella*	*Asteraceae*
fragrant sumac	*Rhus aromatica*	*Anacardaceae*
frogfruit	*Phyla (Lippia) nodiflora*	*Plantaginaceae*
frostweed	*Verbesina virginica*	*Asteraceae*
green lily, lizard tail	*Schoenocaulon texanum*	*Melanthiaceae*
greenbrier	*Smilax bona-nox*	*Smilaceae*
heath flax	*Linum hudsonioides*	*Linaceae*
horsemint	*Monarda citriodora*	*Lamiaceae*
knotted hedge parsley	*Torilis nodosum*	*Apiaceae*
limestone wild petunia	*Ruellia strepens*	*Acanthaceae*
maypop	*Passiflora incarnata*	*Passifloraceae*
narrowleaf pinweed	*Lechea tenuifolia*	*Cistaceae*
noseburn	*Tragia sp.*	*Euphorbiaceae*
pearl milkweed vine	*Matalea reticulata*	*Apocynaceae*
perfume ball	*Gaillardia suavis*	*Asteraceae*
plains wild indigo	*Baptisia bracteata*	*Fabaceae*
prairie bluet	*Hedyotis nigricans*	*Rubiaceae*
prairie gentian	*Sabatia campestris*	*Gentianaceae*
purple milkweed vine	*Matalea biflora*	*Apocynaceae*
queen's delight	*Stillingia sylvatica*	*Euphorbiaceae*
rabbit tobacco	*Evax verna*	*Asteraceae*
rain lily	*Cooperia pedunculata*	*Amaryllidaceae*
ratany	*Krameria lanceolata*	*Krameriaceae*
rock centaury (white version)	*Centaurium beyrichii*	*Gentianaceae*
rosemary sun rose	*Helianthemum rosmarinifolium*	*Cistaceae*
skeleton plant	*Lygodesmia texana*	*Asteraceae*
small skullcap	*Scutellaria drummondii*	*Lamiaceae*
snapdragon vine	*Maurandya antirhiniflora*	*Plantaginaceae*
soft golden aster	*Chrysopsis pilosa*	*Asteraceae*
St. Andrew's cross	*Hypericum hypericoides*	*Hypericaceae*
tall gaura	*Gaura longifolia*	*Onagraceae*
Texas bindweed	*Convolvulus equitans*	*Convolvulaceae*
Texas bullnettle	*Cnidosculus texanus*	*Asteraceae*
Texas persimmon	*Diospyros texana*	*Ebenaceae*
Texas star	*Lindheimera texana*	*Asteraceae*
Texas thistle	*Cirsium texana*	*Asteraceae*
toothache tree	*Zanthoxylum hirsutum*	*Rutaceae*
white milkwort	*Polygala alba*	*Polygalaceae*
zexmenia	*Wedelia texana*	*Asteraceae*

As a footnote, this one survey added significantly to the Caldwell County plant list.

Who Ya Gonna Call?
by Judy Santerre

Early one morning as I headed to work I noticed a turtle on Highway 71 near Alum Creek. He appeared intact, head withdrawn, but he wasn't moving. I thought maybe, just maybe he's alive. I made a U-turn and when I got close to him I noticed a small puddle of blood under him. I thought for sure he was a goner, but then he pushed his head out and looked at me. I took a closer look and the underside of his shell was broken near his front left leg. I wasn't sure he could survive, but I wanted to give him every chance possible. I put him in the car and then wondered, "Who do I call?" I didn't have a clue.

Once in the car, the turtle perked up and walked around. He never snapped or hissed at me, just seemed very happy to be off the highway. Several phone calls and emails to fellow master naturalists later I finally connected with Roxanne Hernandez, who told me about Austin Wildlife Rescue, Inc., which is located at 5401 MLK in Austin. My turtle had not stopped bleeding, so I phoned them and took him there. They thought he would survive his ordeal. A week later I phoned to check on him and learned that Preston Doughty, their president, had fallen in love with him and taken him home. A very happy ending!



No longer threatened by highway traffic, this Three-toed box turtle now has a safe, new—if less wild—home.

At first I thought I had found a tortoise, maybe even the state-threatened Texas tortoise, but he is actually a Three-toed box turtle (*Terrapene carolina triunguis*). At this time of year, they are wandering in search of love so we see them attempting, often unsuccessfully, to cross roadways. Clearly, an injured turtle found in the road needs help. But what if I had found an injured bird, mammal or amphibian? Who would I call then?

As I've since learned, there are actually many wildlife rehabilitators in the general vicinity of Bastrop County, particularly in Williamson and Travis counties. Texas Parks and Wildlife has several pages on its website about orphaned or injured wildlife and wildlife rehabilitators. For Bastrop County, the following rehabbers are listed:

Name	City	Specialization	Contact Info
All Things Wild Rehabilitation	Austin & surrounding	Mammals & birds	512-897-0806
Austin Wildlife Rescue, Inc.	Austin	Mammals, birds, reptiles, amphibians	512-472-9453
Preston Doughty	McDade	Mammals	512-913-9090
Natalie Hayden	Manor	Small mammals (excluding fawns) & songbirds	512-402-4310
Barbara Sellars	Elgin	Small mammals	512-773-4371

Spring in particular, but also during the summer, we're more likely to find critters in need. Keep in mind, however, that most animals you may find are doing just fine and do not need your assistance (those with injuries excepted). For example, does typically leave their fawns bedded down when they go off to forage, *i.e.*, not an orphan in need of your intervention. And young birds seen on the ground begging for food are often a day or two away from taking flight, *i.e.*, not an orphan in need of your intervention. TPWD's web page about orphaned and injured wildlife and Austin Wildlife Rescue, Inc.'s guides for found mammals and birds will help you make a decision about the appropriate action to take.

River Watch

by Holly Hallmark (as told by Rob Sutherland)

Secluded, fresh and reassuring . . . I love to spend early mornings paddling my kayak on the Colorado River, looking and listening to things around me. My favorite circuit starts and ends at the Tahitian Village Takeout, just off River Road. Boating on the Colorado requires vehicles at both ends of the journey. I use just one, by making an up-and-back loop.

Rob Sutherland, AKA the "River Watcher," on the Colorado River

My usual destination is Fisherman's Park in the heart of Bastrop. It takes me about 2 hours to travel the six miles up river. The usual flow of the current requires moderate, focused paddling. But to get through the scattered rapids—eight of them—requires a bit of strategy and occasional hard paddling.

© Kurt Hasselman

We were first drawn to the river in 2011 when our real estate agent drove us along River Road. We were smitten by the river and the trail system at the Colorado River Refuge. This was where we chose to live. Our home is in Tahitian Village; we can walk to the water from our back yard.

© Syd Phillips

I spend time on the river at least twice a week. It provides a fine workout - calming, therapeutic, surrounded by nature. I'm intrigued by the diversity of water birds that inhabit the area: Great Blue, Little Blue and Green Heron abound; Great Egret, Cattle and Snowy Egret are common too; large flocks of Blue-winged Teal are here all winter; I usually spot a Cinnamon Teal in the autumn and Wood Ducks in the spring.

© Ron Kube

I especially love the raptors—particularly the Ospreys. I watch them soar over the river, seemingly weightless, then swoop down into the water to snatch a fish. The water is teeming with activity. Crested Cormorants perch along the river, kingfishers fly up and down its sides. Black and Turkey Vultures ride the thermals, searching for a carcass. Success brings a family

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River, cont.

(Continued from page 6)

feeding frenzy. A healthy river provides for all.


© Raymond Lee

Last February I saw three Bald Eagles! These majestic creatures dominate the airspace above the water. I stopped to watch a solitary one perched 30 feet above me in a tree, and then two more came into view, flying down river. Powerful yet graceful strokes, they looked like a pair of B-25s on a bombing run. What a privilege - each sighting from my front row seat still takes my breath away!

Among the growing stargrass I watch bass jump, feeding on the morning hatch. Just under the surface, a 2-foot gar silently glides, streamlined and alert. Blue sucker dorsal fins trace ripples in the water, like small sharks. They spawn each spring and will ultimately grow to nearly a yard in length.


© Leanne Wiles

My return downstream is more leisurely. I pick up trash spotted during the upstream trip. Using a plastic laundry bag attached to the deck of my kayak, I pull within distance of all manner of Styrofoam cups, plastic water bottles, beer cans and bottles. I use a mechanical "grabber" to rid the river of these mementos of man's heedlessness. It's incredible what people throw in the river! I've found basketballs, an aluminum baseball bat and other things you don't want to know.

I always have to stay aware. More than once I've found water moccasins coiled along the banks of the river, uncomfortably close to my trash target. I still make my river run twice a week, but I don't push my luck – I simply pause my cleanup efforts until spring has passed and the snakes have successfully spawned their young. Life is better if we all just try to get along.

Who's Who

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Birding at Yegua Knobbs Preserve

by Carroll Moore

It was one of those bright, beautiful May mornings in Texas that I look forward to every year. The sky was a deeper blue than usual after a frontal passage. The temperature was pleasant, only a hint of wind, and the air was fresh and clean. For a birding enthusiast, this is about as good as it gets! It was the annual Spring Field Day at Yegua Knobbs Preserve. Driving north out of McDade with the windows down, birdsong filled the thick morning air. The car flushed birds feeding along the roadway, offering up my first sighting of the common ground dove since moving here from East Texas a couple of years ago—and I hadn't even gotten to the Knobbs, yet!

The sun rising at Yegua Knobbs

Summer tanager

Upon arrival, I quickly met and paired up with Hugh Brown, a bearded provincial-looking man. Hugh is an avid birder with infectious enthusiasm, tons of experience, and the practiced eyes and ears of an experienced birder. He didn't miss much. Among the things he taught me were critical components of the song of the summer tanager, something I have struggled with in my more than 40 years of birding. I pestered him with questions the whole morning. With quiet confidence, he responded thoroughly and patiently to each and every query. I'm a relative newcomer to Central Texas and his vast knowledge of local birds blew me away. Local knowledge is crucial, especially when interpreting bird behavior during the passing of seasons.

During the spring season, the vegetation was as verdant as it would be all year. This means bird activity was also peaking. In the early morning mist, breeding and nesting activity was well under way as we threaded through this secluded preserve. It was a symphony of bird sounds. Breeding season leads to the establishment of nesting territories, which are defended by males, and mostly with songs. In some cases, these are rare virtuoso performances specifically for that purpose and not sung the remainder of the year. This morning it seemed every species was out and about. As we walked down the boundary fence toward the pond, we heard in the distance the beautiful scissortail flycatcher with its long tail and beautiful salmon-colored sides. Crows, red-bellied woodpeckers, and a yellow-billed cuckoo also caught our ear. Conspicuously absent in a large field of grass and wildflowers was the song of the rapidly declining eastern meadowlark – not a good omen.

Tufted titmouse

As we left the field near the pond and entered the pine trees behind the dam, we could hear the forest birds and those that prefer the soft edge of the woods. The pine warblers were there with their trill, the chickadees with their "name-sayer" call, along with the nearly continuous cry of the tufted titmouse.

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Birding, cont.

(Continued from page 8)

Carolina chickadee

White-eyed vireos with their characteristic melody were out in numbers. In a tree top just beyond the downed fence, a painted bunting was in full song. Against the glare of the growing sun, we could still make out some of the beautiful colors of this magnificent bird. As we hurried our pace along the sagging and derelict boundary fence, I recognized—this time with renewed confidence—the complex tremolo of the summer tanager. It lifted me up.

Unfortunately, my time was limited and I had to leave Hugh and return home, but my departure would be a richer visual experience than I expected. As I trudged back to the car I observed nature's undertakers—black and turkey vultures—randomly floating the thermals above the Preserve. Another 50 feet and a single chimney swift sliced through the sky before me. At the horizon a synchronized flock of cattle egrets made their way from their heronry to someone's distant hay field. A matched pair of scissor-tailed flycatchers, the male with its elegant long tail, crossed the open grassland as I approached my car. I really hated to leave.

Painted bunting

Everyone knows that birders love to make lists. So, my complete species list is found below. Staying a bit longer and visiting the spring and the ponds would have undoubtedly produced a larger list. Even with a short list, the trip was an unqualified success. I enjoyed the breaking morning sun, breathing the steely spring air, and renewing my profound respect for wilderness and nature and the dark power of the woods. Birding is about more than just the birds, you know.

Observer: Carroll Moore
Location: Yegua Knobbs Preserve
Date: May 10, 2014 Time: 7:15 to 10:00 am
Weather: Temperature 61°-75° Fahrenheit; clear, changing to bright cloudiness; calm wind

American crow
Black vulture
Black-bellied whistling duck
Carolina chickadee
Carolina wren
Cattle egret
Chimney swift
Great blue heron
Great crested flycatcher
Mourning dove
Northern cardinal
Northern mockingbird
Painted bunting
Pileated woodpecker
Pine warbler
Red-bellied woodpecker
Red-shouldered hawk
Ruby-throated hummingbird
Scissor-tailed flycatcher
Summer tanager
Tufted titmouse
Turkey vulture
White-eyed vireo
Wild turkey
Yellow-billed cuckoo

Brooks on Books
by Bill Brooks

Most of you heard about the Monarch programs hosted by the Austin Butterfly Forum (ABF) last March. I loved the way Larry Gfeller put it, "Yes, I am aware of the earth tilting to one side with the weight of the fame of the ABF guest speakers and upcoming Monarch program."

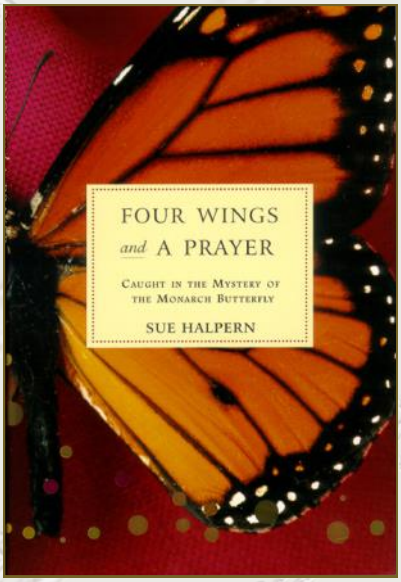
Four people spoke during the March 23 and 24 meetings. One big name was missing – Dr. Fred Urquhart, who passed away on Nov. 3, 2002, at the age of 90. He authored two monarch books and an article in the August 1976 National Geographic magazine that announced to the world that the overwintering site of the majority of monarch butterflies is in Michoacán, Mexico. This discovery was heralded as "one of the greatest natural history discoveries of our time." The only problem was that the location of the butterfly colonies was misstated in the article.

National Geographic Cover, August 1976

On the cover of the August 1976 issue is citizen scientist Catalina Aquado. It was Kenneth and Cathy (as Catalina was called at the time) Brugger who found the Mexican monarch colony under the direction of Dr. Urquhart. Catalina, an Austin resident, spoke at the ABF programs and she signed my National Geographic butterfly issue.

Dr. Lincoln Brower was the headliner at the ABF program. He has been a monarch researcher for many years. If you have seen any of the classic pictures or videos of blue jays spitting up monarchs after eating them, those were Dr. Brower's images. Dr. Brower has analyzed many monarchs and can tell where they have come from by the species of milkweed they have been feeding on. As you might guess, he is really against planting non-native milkweeds in your yard. He is now working on a seminal book on monarchs and I anxiously await its publication.

When Dr. Brower asked Dr. Urquart where the overwintering site of the monarch was, Dr. Urquart refused to tell him. Dr. Brower then sent Bill Calvert, who was also at the ABF meeting, to Mexico. Using hints from the National Geographic article, Bill was able to find the site.



The first words in one of the best monarch books, "Four Wings and a Prayer" by Sue Halpern, are "Bill Calvert eased his truck off Interstate 281." Bill Calvert for several years was the head of the Monarch Watch Program. He also led trips into Mexico to see the monarchs. I went on one of Bill's wonderful getaways in March of 1999.

Another good book, "Monarchs" by Kathryn Lasky, has a picture of my friend Bill on page 30. This book also has some great photos by Christopher Knight.

The final speaker at the ABF was John Christian. He is a photographer who went to Mexico. John studied under Russell Lee, a well-known Austin photographer.

Another great monarch book is by the renowned nature writer Robert Michael Pyle. His book is "Chasing Monarchs." Some of you may remember Phil Shappert, who once lived near Bastrop.

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Brooks, cont.

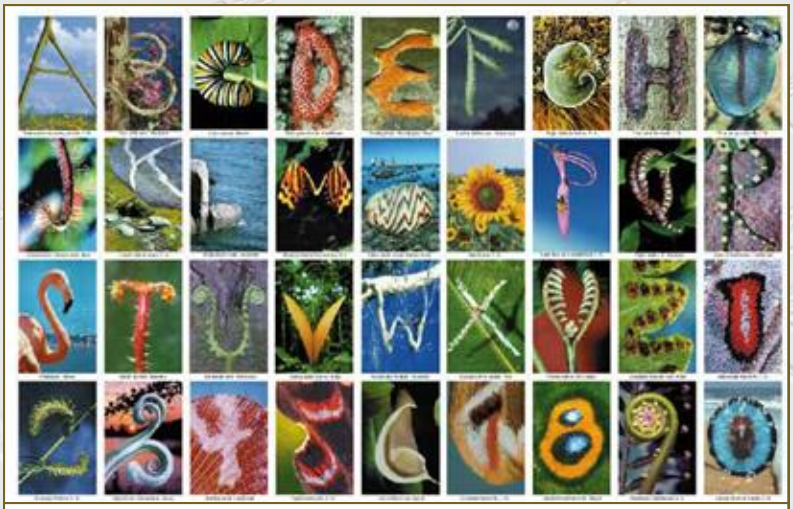
(Continued from page 10)

He wrote a book with a great conservation message called "Monarch Butterflies, Saving the King of the New World." If you are a teacher, you may be familiar with the "Monarch Butterfly Royal Mail," which was developed by a committee of Mexican teachers. This manual for the environmental educator has a great number of class activities for students. Teachers who are interested in other butterfly-related activities should look up "The Family Butterfly Book" by Rick Mikula. This book is full of great pictures and projects for young students.

I also need to mention the Sierra Club book "The World of the Monarch Butterfly" by Eric S. Grace. He has written several nature books. This one is loaded with lots of great information and outstanding photographs.

As long as we are talking about butterflies, I want to mention a poster called "The Butterfly Alphabet." It's a pretty amazing poster and you can find it online. It's billed as the first alphabet found in nature. Kjell B. Sandved found and photographed the American alphabet in the patterns on butterfly wings. Later he published a small book to accompany the poster. It's also called "The Butterfly Alphabet." I have the poster and three pages from this book on my walls at home – fun.

Read on and enjoy!



The Butterfly Alphabet by Kjell B. Sandved

Lost Pines Master Naturalist Monthly Business Meetings

The monthly business meeting, which occurs on the third Monday of each month, is an opportunity to hear first hand about volunteer and advanced training opportunities. The chapter's project leaders update members on their work and recruit volunteers if needed. In addition, chapter administration issues are discussed: brief committee reports, financial decisions, and news from our state organizers. Stay tuned to Meetup.com to learn more about upcoming meetings.

One hour volunteer time is awarded for attendance at qualifying business meetings.

Newsletter Deadline

Submission deadline for the next issue is August 22, 2014. We welcome relevant contributions, photos, announcements, or other material relating to the mission of the Texas Master Naturalist program, particularly those pertaining to our local area. Submissions may be edited for clarity, grammar, spelling, and space requirements. Please send information to the editor at Roxanne.M.Hernandez@gmail.com.

Farmers, cont.

(Continued from page 2)

fungus from her family garden as "starter" for her new homestead. After establishing a basic underground shelter, she begins to culture this bit of fungus into a growing food source for her first brood. She is, relatively speaking, huge and fertile, producing enormous egg masses. The first surviving ants will be small due to their limited food intake. These first workers bring bits of plant material back to the nest to enlarge the fungus. As the colony grows, worker ant size increases and the variability needed to distinguish specialized functions occurs. Wielding the power of numbers, the most successful colonies have four or five producing queens and as many as 8 million individuals. Nearly indestructible!

A queen leafcutter ant with some of her daughters rests amid the cultivated white fungus. pbs.org

Most of us have seen serpentine columns of foraging leafcutter ants carrying oversize loads in their powerful mandibles, following a long chemical trail back to the central nest. Leafcutters traditionally forage at night. In winter, when green foliage is at a premium, the workers forage when daytime temperatures are more hospitable.

When leafcutters mount a raid, there's nothing much you can do. Tearing up their nest only transports them to an extended level of orgasmic ecstasy, and most commercial ant control treatments or home remedies only seem to excite them further. I've seen them completely denude a cherry laurel tree overnight. They've killed redbuds, violated wax myrtles and vaporized desert willows on my property. But they sucked my heart out when, during the winter, they attacked over two acres of pine seedling replants, stripping needles, clipping off the new buds; sometimes cutting them off at ground level. I found words but not sentences they could fit. Dumbfounded. Drought and gophers and the summer heat were not enough . . . now came the hordes . . . billions of little legs carrying off my babies in the open daylight! According to the Texas A&M Forest Service, in an average year in East Texas these ants destroy nearly 12,000 acres of pine seedlings and run up bills of more than $52 million in control and replacement costs.

My weapon of choice? Napalm. Unfortunately, it's not approved by the EPA. Only Amdro Ant Block (actually created for fire ants) remains the legal registered option. You can find it in 1½ lb. containers at Lowe's, Home Depot, Walmart, *etc*. Spreading it liberally over the central nest (12+ lbs. worth) I got good results. The ants don't always eat the stuff, they take it down into the nest as food for the fungus garden, because it contains sugars that are somewhat attractive to them and it complements the natural sugars produced by the fungus. I saw results within 3 weeks. This is not to say it killed all the ants; more likely it damaged the fungus and they moved their nest. Either way, activity at the mound ceased.

And there is good news on another front: Some pine seedlings that were clipped and stripped on my property by the ants are showing signs of life now that spring has arrived. All is apparently not lost. If you see these ants on your property, put away your sprays and insecticides—these are not your average ants! You are up against a species that is eight times your senior, and they know what they're doing. Give them a little respect.

Editor's Note: If you're interested in learning more about the Texas leafcutter ant, visit the LPMN website to read more of what Larry learned about this fascinating species in the supplemental article "Property Wars."

SNAKE REDISCOVERED . . .
Contributed by Bill Brooks

Those of you who attended the May 19th LPMN meeting and saw my reptile program might remember my photograph of two rear fanged Texas night snakes (*Hypsiglena torquata jani*).


© Juan Martinez-INECOL/AP

A relative of this reptile, the Clarion night snake (*H. ochrorhyncha unaocularus*) has recently been in the news. This snake was originally discovered on Clarion Island, a small volcanic island off the coast of Mexico, some 80 years ago. It was then promptly lost to science.

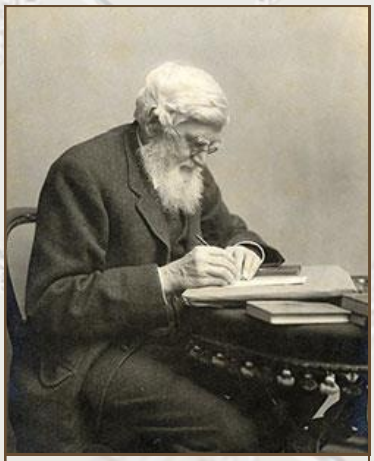
"The rediscovery of the Clarion night snake is an incredible story of how scientists rely on historical data and museum collections to solve modern-day mysteries about biodiversity in the world we live in," lead author Daniel Mulcahy, a researcher at the National Museum of Natural History, in Washington, D.C., said in a statement. "Proper identification is the first step toward conserving this snake, and we plan to continue monitoring this species to learn more about the role it plays in the delicate Clarion Island ecosystem" (PLOS ONE magazine, May 16, 2014).

BIRD SONG HERO
From Cornell Lab eNews, June 2014

Learning bird songs is a key birding skill, and it's one of the most frequently requested features that visitors to The Cornell Lab of Ornithology website ask for. In response, their All About Bird Biology team developed Bird Song Hero. This fun game puts the visual side of your brain to work, asking you to match the song you're hearing to one of three visual representations of the sound. With more than 50 songs featured, you might just end up with a catchy song stuck in your head. Try out Bird Song Hero.

WALLACE LETTERS ONLINE
Contributed by Bill Brooks

In the summer of 1852 Charles Darwin and Alfred Russel Wallace are credited for co-discovering evolution by natural selection. Darwin is the better known of these two men, but this may be changing.


British naturalist Alfred Russel Wallace (1823 - 1913)

Very recently, the Natural History Museum in London put the Wallace letters online. The open-access database contains nearly 4,000 letters—or about 95% of the known surviving correspondence—sent to and from the famous naturalist. The database is fully searchable and includes transcripts and scans of many of the letters. The launch of this database is part of Wallace100, a series of events celebrating Wallace's life and work during the centenary of his death.

The project was funded by the Andrew W. Mellon Foundation based in New York City. Click here to visit this interesting collection of correspondence.

A Message from Julia Akin, LPMN President


Photo by Andy Wier

On June 14th I had the opportunity to volunteer at Bastrop State Park for a Texas Parks and Wildlife's Go Fish event. For anyone unfamiliar with Go Fish, it's an opportunity for families to learn how to fish with hands-on activities led by volunteers and includes actual fishing, with the equipment and bait provided. Our own Bill Brooks coordinates the event for TPWD. It is one of the most fun volunteer opportunities I've participated in since I joined the chapter in 2012.

I've fished since childhood, but I continue to be amazed by the number of kids, teens and even adults who have never fished. That means they've never experienced the relaxation that comes from the required focus. (Try throwing a line out and *NOT* staying focused until the fish strikes . . . or not.) Nor have they experienced the excitement of finally catching a fish, and then the thrill of tossing the fish back and watching it swim away. But most of all, they haven't enjoyed being outside at the most productive times of day to fish – dawn and dusk – when nature's colors, sounds and smells are at their peak and most enjoyable.

You have an opportunity to participate in the last two Go Fish events of the year in July. On Saturday, July 12th the event will be at Bastrop State Park, and on Saturday, July 19th it will be at Buescher State Park. Bill and his regular team of volunteers will tell you all you need to know to volunteer for Go Fish. No fishing experience is required. Whether you assist with registration, baiting hooks, or help with a "learning station" (casting, fish habitat, rules and ethics, safety, and knot tying), I guarantee you will have fun, and maybe learn something along the way. Both events are posted on Meetup. If you're available to help, email Bill directly at b.brooks@utexas.edu so he'll know to expect you and have a name tag ready.


Photo by Andy Wier

And for heaven's sake, if you know someone who has never been fishing, get them out there and *Go Fish!!*

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The Texas Master Naturalist program is sponsored by the Texas AgriLife Extension Service and the Texas Parks and Wildlife Department.

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