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the Cyrano

Texas Master Naturalist

The Newsletter of the Brazos Valley Chapter

President's Corner

by Dwight Bohlmeyer

It's hard to believe that it's been five years since our chapter first began. We have trained nearly 100 members and volunteered thousands of hours. I've heard experts speak on nearly every aspect of the natural history of the Brazos Valley. Sometimes it seems the more I participate, the less I know. The goal of our chapter though is not to learn the scientific names of every species in Brazos County, but to appreciate nature and to share that appreciation with others.

I recently noticed a concrete wall in Thomas Park while walking my dog early on a Saturday morning. The wall was covered with yellow, crustose lichens that positively glowed in the early morning sunlight. I came back the next morning and photographed the wall in the hopes of identifying the lichen. I am still in the process of identifying the specimen, but that's part of

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President's Corner (Cont'd.)

the fun of our program. We are constantly being exposed to new organisms, and our curiosity is continually tweaked.

The best thing about our chapter though is the friends that I have made and the opportunities it provides to get out in nature. I encourage each of you to stay involved with the program in 2010, to stay curious, and to help spread your love of nature to your fellow citizens of the Brazos Valley.

Bluebird Boxes Across the Brazos Valley

by Lois Eisenstein

While I waited at a traffic light one late afternoon in January, hundreds of grackles arose in unison from the power lines above, like billows of dust being shaken from a sooty blanket. It felt foreboding, almost like a biblical portent. Would this long, dreary winter go on forever?

Fortunately, an antidote was close at hand: Just when winter seems never-ending, bluebird nesting season in the Brazos Valley begins. The Texas Bluebird Society kicked off the season with an all-day event to help local residents welcome these lovely messengers of spring into our backyards and neighborhoods.

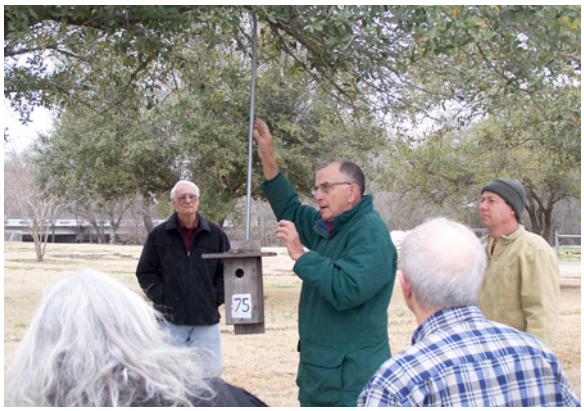
Building a Texas Bluebird Trail

A sell-out crowd filled the Brazos Center on January 30 for The Texas Bluebird Society's (TBS) Seasonal Kickoff, despite 39-degree temperatures and overcast skies. The TBS's catch-phrase is "Bluebirds across Texas–one nest box at a time." To help support the Eastern Bluebird, the single species found in our area, the TBS enlists volunteers to install and maintain bluebird nest boxes. Volunteers set up their own trails of bluebird boxes and regularly report on the birds' progress, often posting information and photos online.

Speakers were on hand to provide helpful information to the bluebird boosters in attendance. Dr. Keith Arnold, Texas A&M Wildlife and Fisheries professor, gave a report on the status of the three species of bluebirds found in Texas. The data show a drastic decline in the numbers of bluebirds throughout the United States. Although the decline in Texas has been moderate to date, pressure on bluebird populations is increasing as urbanization progresses in the Brazos Valley and elsewhere. The loss of open fields, increased pesticide use, the clearance of cavity-nesting sites through the removal of dead or decaying trees, and the replacement of wooden utility poles with metal, all affect bluebird habitat and food supply. Compounding these effects is the accompanying increase in alien species like the European starling and English sparrow that compete for nest sites and attack or kill bluebirds and their nestlings.

In addition to a wealth of information, attendees received door prizes and took part in a silent auction. New members received a free nest box, and additional boxes could be purchased at a discount. Proceeds will be used by the TBS for the construction of new bluebird boxes. Each bluebird box features a trap door to enable viewing of the nests, eggs, and hatchlings. Avid wildlife photographer Dr. D.A. Patton talked about his techniques and preferred equipment for photographing birds. Brett Blankner, Geographic Information System

Coordinator for the City of College Station, demonstrated electronic mapping systems for recording the location of nest-box sites through the use of handheld Global Positioning System locators, the Cornell Lab of Ornithology NestWatch database, and Google mapping. Outside on the grounds of the Brazos Center, TMN member Jim Anding provided tips on how to set up successful bluebird boxes.



Jim Anding shows one method of setting up a predator-proof nest box.

LeAnn Sharp (TBS Vice President) and Pauline Tom (TBS President) provided their own observations of nesting bluebirds. According to Ms. Sharp, bluebirds are tolerant of human observers who open and peer into the nest boxes, and they will even nest in urban backyards, provided that there are open grassy areas with nearby supplies of insects and berries. Ms. Tom proved to be a vigilant defender of her bluebird boxes and shared her strategies for thwarting critters (e.g., snakes, mice, hornets, raccoons, house cats, English sparrows) that view bluebird boxes as convenient lunch boxes or potential residences.

One Nest Box, One Vote For the Bluebirds

It has been said that in a democracy, people get the officials they deserve. It also may be true that we get the birds we deserve. While grackles, starlings, and English sparrows are a result of urban development, many Texans are determined to preserve and provide habitat for our beautiful native birds. Panelists Jim Anding and several of our local TMN chapter members, —all bluebird-box veterans—described last year's nest-box experiences. They shared the joy of watching bluebird parents select a nest box, the thrill of being able to lift the trapdoor to observe blue eggs and hatchlings in their grassy nests, and the shared excitement of children, grandchildren, and neighbors. They also gained an appreciation of the bluebirds' struggles in coping with the challenges of extreme heat, drought, and predation. All are ready to do it again this year. In the words of one speaker: "Bluebirds have the sky on their backs and the earth on their breasts. They just take your breath away!" Let's hear it for bluebirds—and for the people who want to save them for all to enjoy, one nest box at a time.

Texas Master Naturalist Heritage: Frederick Jacob Lindheimer

by Jo Anne Bates

Frederick Jacob Lindheimer (1802-1879), sometimes known as the "Father of Texas Botany," came to the state in 1836 as a soldier prepared to fight for Texas independence. Because of his activity in an unpopular movement to reform the German government, he immigrated to the United States as a political refugee. After completing his army duty, he attempted farming and practiced botanical collecting on the side. For more than a decade, living on a shoestring, he searched the wilds of Central and Southeast Texas for new species. His correspondent, friend, fellow botanist, and fellow Frankfurt native was George Engelmann. In 1842 arrangements were made for Lindheimer to collect Texas plants and send these specimens to Engelmann in St Louis and to the famous scientist Asa Gray of Harvard University. Some of these plants eventually made their way to the major museums of the world.

As a permanent resident of the state, he settled in New Braunfels. He was founder and first editor of the earliest German newspaper of substance in Texas. After about 20 years with the newspaper, he returned to his botanical pursuits.

Lindheimer is credited with the discovery of several hundred plant species. In addition his name is used to designate forty-eight species and subspecies of plants. One of these—the *Lindeirmera texana,* commonly called the Texas yellow star or Lindheimer's daisy—has given him a kind of immorality. Texas yellow star plants are 6-24 inches tall and widely branched. They may have one or several flower heads in a cluster at the end of each stem. Each flower head has five bright yellow ray flowers. Also credited to him is the *Gaura lindheimeri,* Butterfly Gaura—an upright or widely spreading, soft- hairy, 2-5-foot perennial with delicate white flowers in elongated terminal and axillary clusters. The *Castilleja purpurea var. lindheimeri,* Lindheimer's prairie paintbrush, is distinguished by floral bracts in a range of oranges and reds. This perennial paintbrush ranges from the Blackland prairies of north-central Texas south to the Rio Grande plains in calcreous gravels, sands, and clays. *Opuntia engelmannii var. lindheimeri,* Texas prickly pear, often grows to 5 feet tall and is found in most of the state. One species of this plant is named for George Engelmann, and the variety of course comes from Frederick Lindheimer. His memorials also include a subspecies of snake, the *Elaphe obsoleta lindheimeri,* or Lindheimer's rat snake, as it is more generally identified.

Lindheimer is buried in New Braunfels. His house on Comal Street is now a museum.

Texas Yellow Star (Lindheimer's Daisy)

Butterfly Guara

Prairie Paintbrush

Prickly Pear

Access Nature: Re-discovering the Inner Child

by Lois Eisenstein, Jean Webster, and Olivia Wolken

"Everyone is a teacher in one way or another."

With that statement, Dr. Carolyn Schroeder from the Center for Teaching Science and Math at Texas A&M kicked off the "Access Nature" workshop on February 6 at the Brazos Valley Museum of Natural History. Over the next several hours, she and Maria Lazo, Associate Director of the Brazos Valley Museum of Natural History, led us through six creative and hands-on learning activities based on the National Wildlife Federation's Access Nature curriculum.

Our TMN Brazos Valley chapter was well represented with five of the fourteen participants.

Representing TMN in the Access Nature workshop (left to right): Jan Stallone, Jean Webster, Lois Eisenstein, Olivia Wolken, and Linda Jones

Fun ways to teach children about erosion and streambeds, wildlife habitats, predator/prey relationships, and parts of a tree were subject areas explored. Participants also learned about educator's resources available from the museum. Each of us received the National Wildlife Federation's Access Nature handbook that includes 45 learning activities. Targeting children and teens (ages 6 to 14), the Access Nature learning activities can be adapted for younger or older age groups and can be modified so that persons with disabilities can become meaningfully involved.

A goal of the Access Nature program is to educate children by getting them outside and in touch with nature in their own neighborhoods. Learning activities are grouped into six areas of interest: habitat; sun, soil, and water; animals; birds; plants; and human impact. Workshop participant Jean Webster said, "I think the habitat web was one of my favorites. The idea of interdependence within the ecosystem was beautifully demonstrated when just one integral element dropped his hold on the yarn and the whole system fell apart, one element at a time. I think that from something like this, people can really feel the interrelationships that are necessary to our complex, shared habitat."

Working (with much laughter) in teams, each participant discovered that his or her own inner child is alive and kicking! After a day filled with hands-on learning, we left the museum with great big smiles, nature journals and habitat dioramas we'd created, and, above all, an eagerness to teach children about nature as part of our outreach activities.

The Commoners

by Jimmie Killingsworth, photo by Jackie Palmer

The cardinal splits the cool air with his insistent, full-throated whistle. Returning from my morning walk just at first light, I see his silhouette on the power line with his royal crest held high. He's a common bird, but at this time of day, he's bold and regal in his singing. His claim on his territory—and on my attention—will not be denied.

It's tempting to take the common birds for granted and rejoice only in the rare—like the great crested flycatcher we saw sitting on the back fence one day last summer instead of the

usual dove or wren. But the common bird, like ordinary people, always has a story worth hearing and a lesson to teach.

The cardinal, with its boldness at dawn and dusk, teaches about camouflage. A bright red bird stands out in full sun, but nearly disappears in fading ultraviolet light. Then he can sing with passion and with less worry about predators.

And what about the house sparrow, aka English sparrow? The commonest of the common, dull-feathered gray and brown, with a song of no consequence, this urban dweller in its great flocks is a pest for keepers of bluebird boxes and martin gourds and finch feeders—an invasive species on top of all its other faults. But why resent this chubby little imperialist for the very trait that we admire in people? I'm talking about adaptability. The dean of Texas naturalists, Roy Bedichek teaches that the house sparrow first thrived in the New World with the growth of the big cities during the nineteenth century. It fed on insects in the dung left in great heaps by the horses that pulled the carriages and omnibuses through the city streets of that day. When the automobile became the preferred mode of travel, the sparrows adapted, taking their nourishment from the splatter of grills and windshields.

Then there's the mockingbird. It's the Texas state bird, but that's no real distinction, since it joins the cardinal as the species most frequently chosen as avian mascot among the fifty states. I have no great love for this bird. One of its tribe once severely wounded a cat of mine. It's an aggressive little beast. When the figs are ripe on our tree, it will gorge itself even as we're waving our arms and yelling to chase it off.

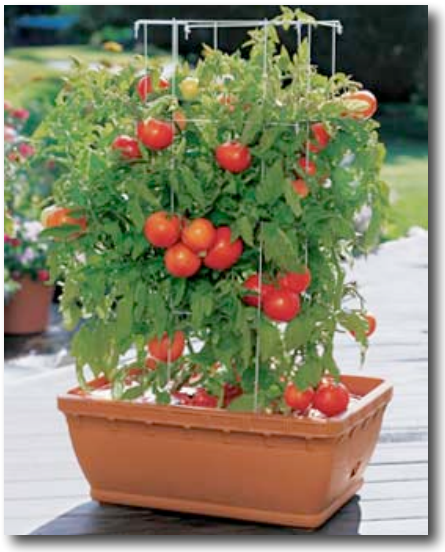
One day last summer, fully dressed for work, I was drawn at the last minute to the yard when I heard a piece of birdsong I didn't recognize. I crept around and listened closely—and was on the verge of locating the singer in a bushy corner when I took an ill-advised backward step and fell into the pool. As I pulled myself out, feeling stupid and very wet, I looked down to see my cell phone lying at the bottom of the pool, then looked up to see the mockingbird fly out of the bush and up into the fig tree to get breakfast.

And yet, the very thing that sent me swimming that morning is what fuels my grudging admiration for the mockingbird—the power of variation in that wondrous song. I heard a Scottish musician once lecturing on the folk music of the British Isles. One of his instruments was the English flute, commonly known as the recorder. The name goes back to the Renaissance when "record" simply meant to repeat. The English flute was used to train singing finches kept as pets in cages. The person would play a little phrase on the recorder until the finch would repeat it. The Scot said he tried out the technique on a mockingbird in a garden in Virginia one day. The bird caught on quickly but kept throwing variations back at the human musician who tried to keep up but soon ran out of breath.

Chances are, no human being could have kept pace in that little jam session. In *The Singing Life of Birds*, Donald Kroodsma reports that a male mockingbird can have over two hundred songs. His close relative the catbird, another common species, might have twice that many.

I can't help but be impressed. Call me democratic. I cherish the commoners and celebrate their special qualities.

Organic Container Vegetable Gardening: A Mobile Solution to the Challenges of Shade,



Why Container Garden?

Year by year, my backyard has grown shadier as the local trees have gotten taller. And year by year, the microscopic worms called nematodes[1] have found our garden beds a happy place to raise families, in spite of our efforts to solarize the soil, till in elbon rye, and rotate crops. Each of these challenges—shade, disease, and pests—can slow or even put an end to harvesting delicious and healthy home-grown vegetables. If you find you are short on space for any of these reasons, consider going mobile.

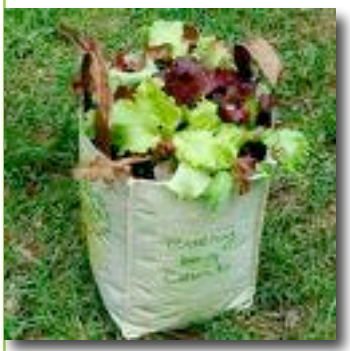
Other reasons to use containers for gardening include the beauty of the containers and their arrangement around the home, the delight children take in a miniature garden, and the relatively easy physical requirements of container planting.

How to Choose and Prepare the Containers

Containers: A wide variety of containers can be used, from high-end terracotta pots priced between $50 and $350 to more ordinary large plastic pots costing under $20 each at a big-box store, to manufactured kits such as the "Earth Box" (+/- $50), to cast-off tree containers from arborists. Consider purchasing or building platforms with casters for each container to make it mobile. The container must have good drainage, preferably with ¼" holes spaced evenly either along the side of the container, ¼ to ½" from the bottom, or in the bottom, of the pot. And it must be sufficiently wide and deep to allow for root development and water retention. For a list of plant varieties and their suggested container sizes, see Elmer Krehbiel's story in The Eagle of 18 April 2008 (available at http://www.theeagle.com/gardening/Container-gardens-can-be-rewarding) and Professor Joseph Masabni's article describing containers, selecting plant varieties, growing media, transplanting, and fertilizing at http://aggie-horticulture.tamu.edu/publications/guides/E-545_vegetable_gardening_containers.pdf. Organic gardeners will find helpful information on this site, even though Professor Masabni recommends synthetic soil and a regular program of fertilizer application. The same is true of Sam Cotner, Agrilife Extension specialist's site at http://aggie-horticulture.tamu.edu/extension/container/container.html. Provide support for tomatoes and other vining plants by setting a cylinder of wire mesh with supporting stakes or bamboo poles a couple of inches inside the pot's lip, making sure they are secure.

Soil and fertilizer: Before adding the soil, sterilize the container with a solution of one part bleach to nine parts water. Line the bottom of the container with filter fabric or a coffee filter or newspaper to avoid losing soil through the drainage holes. On top of this, place a layer of

sterilized large gravel or broken pottery. There are several options for choosing the soil mix for your containers, depending upon whether or not you want to grow your veggies organically. If you choose the organic method, fill the pot with "Mel's Mix," the soil formula described in Mel Bartholomew's book, All New Square Foot Gardening (Franklin, TN: Cool Spring Press, 2005, p.89): 1/3 blended compost, 1/3 peat moss, 1/3 coarse vermiculite in equal parts (by volume not weight).



Most writers and researchers on this topic advise avoiding garden soil, and many prefer a soil-less (not organic) mix for the container. Charla Anthony describes the advantage of these mixes: they are "lightweight and . . . free from . . . diseases and weed seeds.... If you use a soil mix with fertilizer included," she writes, "plants will have enough nutrients for about 90 days. After that, use a water-soluble fertilizer applied at ½ strength every two to three weeks" (The Eagle 1 May 2009, http://www.theeagle.com/gardening/Create-your-own-garden-to-go). Organic gardeners will want to consider fertilizing the plants with a ½-strength solution of fish emulsion once every week or two while watering. Additional organic fertilizing options can be found in J. Howard Garrett and C. Malcolm Beck's Texas Organic Vegetable Gardening (Houston: Gulf Publishing Co., 1999, pp. 29-39); see also the chapter on beneficial and harmful insects. In all cases, leave a margin of 1-3" at the top of the container for mulch.

Watering: Container plants will need frequent watering. You may want to research self-watering containers at http://www.plowhearth.com. (See the "Billy Root Watering System.") Use rain water to avoid accumulating salts in the mix. If they do accumulate, heavily water the containers to flush out the salts once a week. If watering by hand, always water until the water runs out the bottom of the container, and be sure that the container has good drainage. Don't allow the soil to dry out between waterings, and avoid wetting the plants' leaves.

Placement: Container veggies will need the same hours of sunlight—usually 5-8 hours per day—required by veggies planted in the ground. Position the containers to receive the number of hours required, but if they are on concrete or another hot surface, raise them up a few inches by placing them on a platform or other material. The heat from concrete can cook the roots! Containers usually look more attractive when clustered together, but be sure to allow for air circulation. To make them more attractive, raise the plants at the rear of the cluster higher than those at the front.

Once you've prepared the containers and their rolling platforms, you've got the essentials you need to grow veggies organically or conventionally in containers any time you like.

[1] For information on nematodes, go to http://aggie-horticulture.tamu.edu/plantanswers/misc/nematodes.html.

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Can you identify these ants? (Photo by Jackie Palmer)

Guess what Jim found near Sugarloaf Mountain? (Photo by Jackie Palmer)

The Brazos Valley Chapter of the Texas Master Naturalists was founded in the fall of 2005 as "a corps of well-informed volunteers who provide education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within our community."

This issue of the *Cyrano* was prepared by the 2010 Brazos Valley TMN Newsletter Committee: Jimmie Killingsworth, Lois Eisenstein, Kate Kelly, Jackie Palmer, and Tanner Singleton