

NATIVE PLANT ISSUE

# GULF COAST *Gardening*

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TEXAS

MASTER  GARDENER

TEXAS A&M AGRILIFE EXTENSION

Galveston County

WRITTEN BY GALVESTON COUNTY MASTER GARDENERS  
IN COOPERATION WITH THE GALVESTON COUNTY OFFICE  
OF TEXAS A&M AGRILIFE EXTENSION SERVICE



## Welcome New Interns



MG Kathy Maines

The Galveston County Master Gardener Association is a volunteer development program that assists the Texas A&M AgriLife Extension Service in providing high quality, relevant, re-search-based horticultural education and service to the residents of Galveston County and the state of Texas through outreach, teaching, and demonstration projects. This is our Mission and this is why our most exciting event this spring is our 2024 Texas Master Gardener Class comprised of 21 students. Class is every Tuesday and Thursday morning from January 30 through April 9. Following classroom education, Interns are required to volunteer 50 hours. Instruction is from Texas A&M AgriLife Extension via Zoom and in person from Master Gardeners with advanced training. They participate in tomato trials as a class project and this year's tomato tasting, which is open to the public, will be Thursday, May 30. Mark your calendars!

Where will Galveston County Master Gardeners be this spring? View the calendar on our website at <https://txmg.org/galveston/>. See if your garden club is on the calendar. We will have Ask a MG booths at Galveston's Own Farmers Market and Jimbo's Nursery in Santa Fe. We have free sem-inars at Carbide Park in La Marque on peppers, growing avocados, cucumbers, squash and mel-ons and part three of our tomato growing series, tomato stress management. Remember, every Thursday our Discover Garden at Carbide Park in

La Marque is open to the public from 9 am to 11 am. Come out for a visit, walk around, and receive a tour. Thursday, March 21 is a special day at our garden. It is our March Madness in person plant sale. Starting at 9 am we will have Master Gardener grown plants, perennials, spring vege-tables, peppers and herbs for sale.

Spring is definitely here. We are watching our plants and trees put out new growth and planting our spring vegetables. Many of the plants we are watching are native to Texas. Why native plants? According to the Native Plant Society of Texas at [npsot.org](http://npsot.org), "Native Plants are drought-tolerant, naturally conserving our precious water resources, provide habitat and food for birds, butterflies, bees and other wildlife, don't need special pam-pering or fertilizing, are natural to their ecosys-tem and help us maintain biological biodiversity." I have found that if you ask gardeners why native plants, the first response is usually "because they come back year after year and the pollinators love them".

Enjoy and thank you for supporting us!

*Kathy Maines*



Intern Weez Doherty introduces intern Jim Bridgett MG Karolyn Gephart

## Natives...Perfect for Spring Gardens



MG Karolyn Gephart

From the first article in this issue by Denise Franke to the ones on salvia, milkweed, gaura, bluebonnets, Mexican plum and the Texas Olive Tree, I think you will be inspired to select a few natives for this year's spring gardens. The benefits are numerous and inviting pollinating visitors to your garden is part of the fun.

Enjoy the beautiful photos by MG Vicki Blythe and travel to the UK and the wine country in California to visit special places. So much to inspire you and add to your bucket list to do and see. Welcome new interns. See them on their first day in a photo page in this issue.

Time to hang out the hammock and read al fresco. Enjoy!

*Karolyn Gephart*



MG Vicki Blythe

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# The Many Benefits of Native Plants



Denice Franke  
GCMG 2011

When I began gardening, my focus with plants were sustainability and the three Bs (bees, butterflies, and birds). What I didn't know at the time was that native plants provide additional benefits such as erosion control and water conservation.

They clean the air we breathe and invite more native beneficial insects than non-native ornamentals do. It's not just bees and butterflies, it's other wonderful insects such as various wasps, hoverflies, beetles, moths, etc. There are also natives that many of us have been either weeding out or removing that invite the tiniest creatures that help make our gardens thrive.

Horseherb (*Calyptracarpus vialis*) provides nectar for various tiny bees. Texas frogfruit (*Phyla nodiflora*) invites an array of pollinators that we never notice until we stand still for a moment and observe. Aphids are dinner for lady beetles, lacewings, and parasitoid wasps. Parasitoid wasps also love tomato hornworms and other caterpillars. They lay their eggs on the caterpillar and the caterpillar gets eaten from the inside out -- what an exciting learning activity for your kids and grandkids.

Native plants do not need pesticides and fertilizers to have them thrive in our gardens. Specific native plants thrive because they have lived in our ecoregion for millennia. They have survived the freezes, the droughts, the floods, and the insects eating them. Pollinators are vital in the production of the foods we eat. Without them and the wildlife that feeds on them, our food source would decline and we would have to turn to alternative methods that could possibly hurt us if not handled correctly. Why not have nature do what nature does best without our intervention?

You don't have to redo your entire landscape to make an impact. Start small, reduce your lawn, create a small pollinator garden with native wildflowers. Replace some of your non-native shrubs with Wax myrtle (*Morella cerifera*), American beautyberry (*Calli-carpa americana*), Turk's Cap (*Malvaviscus arboreus* var. *drummondii*), and Coralberry (*Symphoricarpos orbiculatus*); replace non-native grasses with Gulf muhly (*Muhlenbergia capillaris*), Little bluestem (*Schizachyrium scoparium*), Switchgrass (*Panicum virgatum*) or Inland sea oats (*Chasmanthium latifolium*). Need a small tree? Try Mexican plum (*Prunus mexicana*), Possumhaw (*Ilex decidua*), Mexican olive (*Cordia boissieri*), or Roughleaf dogwood (*Cornus drummondii*).

Planting natives is important "because insects and plants evolved in tandem over time. Insects native to this country need plants native to this country. Some plants support more insects than others. Oak trees, for example, provide food for 557 species of caterpillars (prime food for birds). The native tulip tree supports 21 species of caterpillars. The Ginkgo tree (from China) supports no native caterpillars," says Doug Tallamy, an American entomologist, ecologist and conservationist. He is a professor in the Department of Entomology and Wildlife Ecology at the University of Delaware.

Birds cannot survive on berries and seeds alone. They need soft-bodied insects to feed their young. It takes thousands of caterpillars to feed a single clutch of chickadees during their nesting period. We need worms in our landscapes. We need native plants.

The joy and fulfillment friends and I have found in our native landscapes is the diversity and activity of critters that visit our gardens. I no longer worry about covering plants for a freeze. I know they will perk up in a drought when the rain comes. I don't have to keep



Bumblebee getting nectar from Lemon Beebalm



Coral honeysuckle



Eastern Swallowtail on basketflower

## “We can make a difference...”

track of hummingbird feeders, or seeds for the birds because I have planted natives that feed and shelter them. I don't have to break my back spreading mulch because I use fallen leaves to mulch my beds and trees. The leaf litter nourishes my soil and creates winter protection for wildlife.

With the continued loss of our wildlife habitats from development and renovations we are losing the very things that sustain us. We can no longer afford to create landscapes for the sake of aesthetics. It is our responsibility to replace and restore what we have taken, for now and future generations. Together with our small gardens, we can make a difference.

Additional natives that I enjoy growing include the following, with seasonal flowering information:

Firewheel (*Gaillardia pulchella*) (annual, April–Aug.)

Spotted beebalm (*Monarda punctata*) (perennial, April–Sept.)

Lemon beebalm (*Monarda citriodora*) (annual, May–Oct)

Gregg's mistflower (*Conoclinium greggii*) (perennial, March–Nov.)

Blue mistflower (*Conoclinium coelestinum*) (perennial, July–Nov.)

Coral honeysuckle (*Lonicera sempervirens*) (perennial, mid spring, intermittently thereafter) Great pollinator & host vining plant!

American basketflower (*Centaurea americana*) (annual, Feb–Aug.)

Black-eyed Susan (*Rudbeckia hirta*) (annual, March–Nov.)

Seaside goldenrod (*Solidago sempervirens*) (perennial, Aug–Dec.)

Purple coneflower (*Echinacea purpurea*) (perennial, April–Sept.)

Tropical sage (*Salvia coccinea*) (perennial, Jan–Dec.)

Aquatic milkweed (*Asclepias perennis*) (perennial, May–Sept.)

Green milkweed (*Asclepias viridis*) (perennial, April–Sept.)

Natives can be easy to grow. Most of plants listed I have grown easily from seed. You don't plant the seeds of prairie plants, you just scratch the soil, scatter the seeds and tap them lightly into the soil to make soil contact and lightly water them in. You don't need soil amendments for trees and shrubs; pick a tree adaptable to existing soil type, backfill with the native soil and get them established. For trees you need to commit to two years of regular watering to establish their root systems. Native plants will grow in containers but they are happier in the soil where they will withstand drought and freezes better. With containers you have to water regularly, often during summer every day.

None of these native plants I have mentioned are invasive. The prolific re-seeders are Tropical sage, Gregg and Blue mistflowers (which spread through rhizomes) and the Seaside goldenrod. All are easy to pull out where you don't want them and can be shared with friends and neighbors who are looking for native plants for their pollinator gardens.

Browse online to the following websites to find native plants and resources on how to start your native garden:

‘Greater Houston Area Plant List’. *Plant Lists By Ecoregion*, Native Plant Society of Texas, 2 February 2024, <https://www.npsot.org/our-work/class-schedule/plant-lists-by-ecoregion/>.

‘Plants’. *Earth-Kind Landscaping®*, Texas A&M AgriLife Extension Service, 2 February 2024, <https://aggie-horticulture.tamu.edu/earthkind/planning-the-home-landscape/plants/>.

‘Plant Lists & Collections’. *Plant Database*, Lady Bird Johnson Wildflower Center, 2 February 2024, <https://www.wildflower.org/collections/>.

Native Plant Society of Texas – Clear Lake - <https://www.npsot.org/chapters/clearlake>.



Honey bee on firewheel



Monarch on American basketflower Photos by MG Denise Franke



# How MG's Found Out About Native Plants



Vicki Blythe  
GCMG 2018

More than a decade ago, I read about the benefits of native plants. I had some natives in my yard, including live oak (*Quercus virginiana*), Southern magnolia (*Magnolia grandiflora*), yaupon holly (*Ilex vomitoria*), Turk's cap (*Malvaviscus arboreus* var. *drummondii*), vitex (*Vitex agnus-castus*), Carolina cherry-laulrel (*Prunus caroliniana*), and Mustang grape (*Vitis mustangensis*). I replaced the boxwoods (*Buxus*) that drowned in Hurricane Ike with Texas sage (*Leucophyllum frutescens*). I added native plants that would tolerate my shady backyard, such as American beautyberry (*Callicarpa americana*) and Inland sea oats (*Chasmanthium latifolium*). I decided to allow most of the yard to become somewhat of a jungle. Unfortunately, the grapevines and sometimes the yaupon take the jungle idea too seriously.

After I retired, I became a Texas Master Gardener in the Class of 2018. At first I collaborated with classmates Sue Bain and Hedy Wolpa on a vegetable bed in the Discovery Garden. When Covid-19 pandemic hit in the spring of 2020, Sue was asked to take over the Butterfly Garden, and she asked Hedy and I to partner with her. We spent a lot of time during the pandemic pulling weeds in the garden. It was a challenge to figure out if new sprouts were desirable plants or not. I learned about native plants by working in this garden!

I bought plants from Master Gardener and Native Plant Society sales. I started clearing out grass in my front yard and planted wildflower seeds and native plants. I have two wildflower areas in my front yard now. Before that, I only had a patch of bluebonnets (*Lupinus texensis*).

After learning more about butterflies in the Butterfly (now Pollinator Habitat) Garden, I started growing native milkweed (*Asclepias syriaca*), which is the host plant for monarch and queen butterflies. I grow Texas natives such as Aquatic milkweed (*Asclepias perennis*) and Zizotes (*Asclepias oenotheroides*) at home. I also grow host plants for other butterfly species. As a result of the native trees, plants and wildflowers in my yard, I am pleased that quite a few birds, butterflies, and other insects come to visit.



Denice Franke  
GCMG 2011

Margaret Canavan, a fellow Galveston County Master Gardener, was my first introduction to native plants. We would work together in her garden and she would point out her darlings and what their purpose was. Some plants were nectar plants, others were host plants.



Margaret Canavan  
GCMG 2003

I've been involved with native plants for at least 40 years, and a member of the Native Plant Society of Texas as long as I can remember. Wildflowers and their identification have always fascinated me and I believe my broader interest grew from that. I have been fortunate to have a friend with similar interests--GCMG Leslye Mize--and we have inspired each other over the years, sharing books, exchanging plants, and gradually evolving our gardens in more earth-friendly directions. It is exciting to see the current growth of the native plant community. So much more public awareness, plants available, people to learn with, and retailers who source natives! Collaborating with Denice Franke is also great fun.



Butterfly MG Vicki Blythe



Natives provide splashes of color MG Vicki Blythe

# Wild Olive Tree



Margaret Canavan  
GCMG 2003

Fifteen years ago, Hurricane Ike paid a memorable visit to Galveston County, resulting in the loss of over 40,000 trees on Galveston Island alone. The response to that devastation was renewed appreciation for our urban forest, and much tree planting. The Galveston Island Tree Conservancy was formed and has been responsible for adding at least 23,000 trees to date.

The Conservancy aimed to expand the hardiness and diversity of the island's tree canopy by increasing the number and variety of native trees to the "usual suspects" of oaks and palms often found on the island. One of them, and my favorite, is the wild olive.

Known botanically as *Cordia boissieri*, the tree is also recognized as both Anacahuita and Mexican olive. Its primary native habitat is in south Texas and northern Mexico. It typically matures as a small tree, usually around 12 to 20-feet, with a symmetrical round crown. Those on the island range from young and still bush-like shrubs to a few 15-foot beauties like the one in my backyard.

The olive is an attractive and easygoing ornamental. Beautiful white funnel-shaped flowers with yellow centers can measure over 2-inches across and attract clouds of butterflies and bees. Blooming begins in May and continues almost all year in the island's climate, although likely more briefly in our county's mainland areas. It is evergreen and cold hardy to about 20-degrees. It usually retains its foliage all winter if no hard freeze visits, although there is a brief period in spring when leaves emerge and looks a bit careworn. The prolonged freeze of 2021 caused total leaf drop but the trees recovered well on the island, with a similar experience in 2023.

The tree is heat and drought-tolerant once established, with a lifespan of 30 to 50-years. Pruning is optional and insect and disease pests are generally of little or no concern. The flowers are an important nectar source for migrating butterflies. Birds and other wildlife feed on the olive-like fruit, hence its name, but it is not related to the culinary olive (*Olea europaea*). There are reports that jellies made from the fruits are safe to eat but I think I'll leave them for the birds.

Wild olive grows and flowers best in full sun or partial shade on well-drained soils. Its status as a small tree makes it perfect for placement under power lines and in

small spaces. The tree can be trained to one trunk for use near walks and patios where clearance beneath the canopy is needed or can be allowed to mature in a shrubbier form with several trunks. It is an ideal accent in a small garden area. In addition to deep green leaves and beautiful white flowers, the tree offers unusual deeply furrowed and ropy bark on trunk and limbs.

Recovery from the tree loss in Hurricane Ike inspired residents to think creatively and expand the tree inventory. Wild olive is an attractive and valuable addition and you might consider propagating your own with seeds or summer softwood cuttings.

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'*Cordia boissieri*'. *Plant Database*, Lady Bird Johnson Wildflower Center, 2 February 2024, [https://www.wildflower.org/plants/result.php?id\\_plant=cobo2](https://www.wildflower.org/plants/result.php?id_plant=cobo2).

'*Cordia boissieri*: Texas Olive.' *askifas*, University of Florida IFAS Extension, 2 February 2024, <https://edis.ifas.ufl.edu/publication/ST181>.

'*Cordia boissieri*', *Campus Arboretum*, The University of Arizona, 2 February 2024, <https://apps.cals.arizona.edu/arboretum/taxon.aspx?id=80>.



Blooms MG Margaret Canavan



# The Texas Bluebonnets



Jan Brick  
GCMG 2001

Growing profusely all over Texas, the bluebonnet has been as much a part of Texas lore as cowboys and Longhorn cattle. There are actually eight bluebonnets...state flowers all.\*\*

The decision of which Bluebonnet should be the state flower was a controversial issue in the early part of the twentieth century. There were those who favored some other flowers that were also indigenous to Texas. Among those suggested were the cotton boll and the blossoms of the Prickly pear cactus. There was also some confusion as to which flower was really the Bluebonnet as some of these popular blooms were also called *buffalo clover* and *wolf flowers* by many locals. The Colonial Dames Society unhesitatingly decided to present a painting of their favorite Bluebonnet to the legislature and, in doing so, won the hearts of the lawmakers who determined that the dazzling bonnet of blue was without a doubt the best choice. The Sandyland bluebonnet (*Lupinus subcarnosus*) was adopted as the state flower in 1901. In 1971 and as a surprise reversal since it is less “showy” than other species, the legislature decided to make all bluebonnets the state flower.

The Annual lupine (*L. concinnus*) is the tiniest of all bluebonnets, a mere two to five-inches tall, in color combinations of lavender, white and purple. Annual Lupine bluebonnets bloom in early spring in the Trans-Pecos region of the far western Panhandle.

The Big Bend or Chisos bluebonnet (*L. havardii*) is the tallest variety with a more vigorous growth than other bluebonnets, and the blossoms have a darker hue. Flowering from January to June, the Chisos bluebonnet can be found growing in deserts, in valleys, and on mountain slopes only in southwest Texas.

The Dune bluebonnet (*L. plattensis*) with its dark blue or bluish-purple flower has a distinctive bright white spot at the base, flourishes in April and May, and prefers the sandy soil and dunes of the Panhandle region.

The Sandyland bluebonnet (*L. subcarnosus*) sports an erect rambling blossom that is bright blue with a white center that turns purplish with age. This bluebonnet fancies sandy soils that can be found on rangeland and on the edges of woodlands shows itself in March and April.

Texas is known for its bluebonnets and even though it's not the only place in the United States where you can find both Texas bluebonnet (*L. texensis*) and Sandyland bluebonnet, the Big Bend area of Texas is the only place you will find the Chisos bluebonnet (endemic). This extraordinary bluebonnet variety grows only in Texas.

Fondly thought of as “the Texas bluebonnet”, *Lupinus texensis* has many blossoms in dense spikes and an intoxicating scent. Flourishing in sandy soils or sandy clay, these so-called true Texas bluebonnets grow in the plains, brush-lands, flats



*Lupinus concinnus* Courtesy Wynn Anderson,  
Lady Bird Johnson Wildflower Center



*Lupinus subcarnosus* Courtesy Lynn Pyle,  
Lady Bird Johnson Wildflower Center



*Lupinus texensis* Courtesy Randy Heisch,  
Lady Bird Johnson Wildflower Center



## “the dazzling bonnet of blue...”

and pastures, as well as along hillsides and slopes. This is the bluebonnet that has been widely planted by the highway department in its roadside beautification and erosion control program, which was initiated by Lady Bird Johnson and her fondness for wildflowers and forward thinking. Texas was the first state to plant flowers alongside the state highways where Texas bluebonnets bloom profusely from March to May, and is the one most often used in pictorials about the bluebonnet. It is also the easiest of all the species to cultivate and propagate.

The seeds and leaves from the entire plant are poisonous. Adults certainly may be mindful of not ingesting plant matter but keep a close watch on your babies and toddlers as you pose them for that photo of a lifetime.

Texas A&M University horticulturists have worked industriously toward the hybridization of the state flower with amazing results. These heretofore wildflowers are fast becoming a popular bedding plant displaying themselves in several colors including a completely white bloom, a ‘Barbara Bush’ lavender variety, and an ‘Aggie Maroon’ cultivar.

Advice and suggestions abound on the numerous garden websites that feature bluebonnet culture, lore and cultivation. Following are some examples:

Plant seeds in full sun, in well-draining soil...covering the seeds sparsely with the soil

If using transplants, do not bury the crown

Water seeds only on the day of planting...do not overwater

Water transplants only when the top inch or so has visibly dried out...do not overwater

Applications of a balanced fertilizer are not necessary but will undoubtedly encourage a more abundant and lavish bloom period

Also recommended is the use of hanging baskets, raised beds, barrels and large fancy containers

The Texas Department of Public Safety expressly confirms that **there is no state law that specifically forbids the cutting and collecting of bluebonnets in Texas**. But there may be specific areas where that could be dangerous, even illegal such as private property and certain roadways. Remember always, these springtime blooms are a particular pride and joy for all Texans, so remaining well mannered and considerate while enjoying their beauty is fundamental.

As historian Jack Maguire so aptly has written, “It’s not only the state flower but also a kind of floral trademark almost as well known to outsiders as cowboy boots and the Stetson hat.” He goes on to affirm “The bluebonnet is to Texas what the shamrock is to Ireland, the cherry blossom to Japan, the lily to France, the rose to England and the tulip to Holland.”

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Parsons, J.M., S. George and G. Grant. ‘Texas Bluebonnets – Texas Pride’. *plantanswers*, Texas A&M AgriLife Extension Service, 2 February 2024, <https://aggie-hort.tamu.edu/plantanswers/flowers/bluebonnet/bluebonnetstory.html>.

**\*\*Editor Stephen Brueggerhoff note:** The following is a list of all bluebonnet species naturally distributed in Texas; source: ‘Lupinus’. *Subordinate taxa*, USDA NRCS Plants Database. 2 February 2024, <https://plants.usda.gov/home/plantProfile?symbol=LUPIN>.

*L. argenteus*, *L. caudatus*, *L. concinnus*, *L. havardii* (endemic), *L. perennis*, *L. platensis*, *L. subcarnosus*, *L. texensis*



*Lupinus havardii* Courtesy W.D. and Dolphia Bransford,  
Lady Bird Johnson Wildflower Center



*Lupinus platensis* Courtesy C.A. Rechtenin,  
Lady Bird Johnson Wildflower Center

# Garden Ponds and Native Plants



Vicki Hall  
GCMG 2023

I dream of gazing upon a beautiful water garden surrounded by plants, wildlife, and the ever-calming sound of a babbling brook, like the ones you see in magazines. I mean, don't we all? Garden ponds enable plant lovers to add a quiet natural environment to any landscape.

The most important step when creating a garden pond is understanding how to care for your pond, the climate of your area and why using native plants is so important. Native plant habitats are vital to protecting our ecosystem. By using native plants around a garden pond, each habitat nurtures and sustains the landscape for local wildlife. Native plants are low maintenance, offer beautiful flowers, can help fight climate change, conserve water, and improve the pond's aesthetics. Many native plants offer a changing landscape around the pond by providing attractive flowers, interesting structure, color and depth.

Choosing plants for pond design is fun, but there are things to consider. It is important to know the water depth, the amount of sunlight the pond will get and how each plant relates to the others. Floating leafed and submerged plants are necessary for a healthy pond. Use plants that do not drop debris into the water, as organic matter can clog filters and deplete oxygen as it decays. This will cause the water quality to decline. Plants are best potted in heavy clay soil, free of organic matter, fertilizers or pesticides. Use plastic pots that effectively keep the soil around the roots for better nutrient absorption. Periodically prune, divide and repot so the pond does not become choked with too many plants.

Most aquatic plants grow best in full sun. When choosing native plants, consider the climate, as well as a mix of emergent, submergent and floating species. The four categories of aquatic plants are:

**Submerged** plants do well under water and have roots in the soil at the bottom of the pond. As the water moves, these plants multiply quickly filtering and oxygenating the water by removing carbon dioxide. Some examples are American pondweed (*Potamogeton nodosus*) and bladderwort (*Utricularia* spp.)

**Floating** plants float on or near the water surface and have either floating roots or roots in the soil at the pond bottom such as water lilies (*Nymphaea* spp.) and American featherfoil (*Hottonia inflata*). Floaters should cover 50 to 75-percent of the water surface to suppress algae growth and provide shade for fish and other plants.



American Native White Lily, photo by Lisa Carter



Large view of yard, photo by Lisa Carter



Horsetail, photo by Lisa Carter



Iris, photo by Lisa Carter



## “Natives offer a changing landscape...”

**Emergent** plants are rooted in the soil under the water but have the larger part of the plant above the water such as cat-tails (*Typha* spp.), arrowhead (*Sagittaria* spp.) and water lilies (*Nymphaea* spp.).

**Shoreline** plants prefer the outer edge of the pond but tolerate being moist, like Cardinal flower (*Lobelia cardinalis*) and horsetail (*Equisetum hyemale*). These plants create a buffer around the edge of the pond and can help reduce the likelihood of water quality issues and erosion damage. These plants also provide a habitat for native birds and hinder mosquitoes by minimizing their breeding environment. Beneficial buffers should be composed of native grasses and flowering plants.

Floating leafed plants will cover the surface of the water and will limit the amount of light reaching the depths of the pond holding algae growth to a minimum. Free-floating plants, like watermeal (*Wolffia* spp.), though not absolutely necessary, add the finishing touch to a water garden looking like nature intended.

The roots of submerged plants are not used for nutrient or water uptake but to anchor the plant, so these oxygenators may be potted in gravel to better hold the pot in place. Submerged plants should be arranged in groups of 6 to 12 plants per pot. Placing net cages around these pots is a good idea if the pond contains fish, which tend to nibble on foliage as well as plants. Examples of submerged plants are Fanwort (*Cabomba caroliniana*), Coon's tail (*Ceratophyllum demersum*) and Eelgrass (*Vallisneria spiralis*).

There are a variety of species of shoreline plants with variable heights, textures and colors to their foliage. Plants for the pond edges add height and drama to the water feature. American beautyberry (*Callicarpa americana*), Muhly grass (*Muhlenbergia capillaris*) and penstemon (*Penstemon tenuis*) add distinctive foliage, where iris (*Iris* spp.), and pickerelweed (*Pontedaria cordata*) have upright linear texture.

The most exciting and important part of designing your pond is planting time. Planting in spring is best and new plants should be in great condition and added to the pond immediately after purchase. Understand that ponds attract wildlife and may invite predators as well! Turtles, birds, snakes, small rodents and insects may be both beneficial and a nuisance to your pond. There are also plants that Texas Parks and Wildlife Department and the United States Department of Agriculture have listed as aggressively spreading and are considered noxious weeds. See below for the link to this list of plants.

Are you now thinking that your pond may sometimes attract unwanted wildlife and some of the plants you love may be on the noxious weed list? I think the immense beauty, peaceful tranquility and environmentally friendly yard habitat you have created will be worth a little extra planning.

Why would you not add a pond to your garden?

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Dragonfly, photo by Lisa Carter



Native Pickerel, photo by Lisa Carter



View of Pond, photo by Lisa Carter

# Eye-catching Gaura



Trish McDaniel  
GCMG Intern 2001

An all-time favorite perennial in my garden is the eye-catching Gaura (rhymes with “flora”, *Oenothera lindheimeri*); a member of the evening primrose family (Onagraceae); also known as Lindheimer’s beeblossom, Whirling butterfly, and Wandflower. The white or pink blossoms are visually mesmerizing as they are tousled by the breeze or pollinators.

Listed by the Native Plant Society of Texas, Gaura is heavily present in arid regions and can also thrive in the contrasting climate of the Gulf plains and marshes. It is happy in full sun to partial shade, has a low-water demand, but requires ample drainage. Gaura provides a generous source of nectar and is keenly attractive to garden pollinators. Prized for versatility, Gaura can thrive in a xeriscape garden as well as in my garden alongside giant elephant ear and hibiscus, where it provides flouncy lightness and texture. It also delivers a luminous shimmer to moon gardens.

Gaura develops as a cluster of single leaves forming a clumping basal rosette. From that grows a bouquet of sparsely leaved wand-like stems, up to three feet high with a two to three-foot spread. The one-inch blossoms form singly along the stems. Four petals form a single blossom, like an open hand wave; eight conspicuously long stamens protrude from the “hand’s” palm. Whereas Gaura has a tendency to sprawl in the garden, young popups are easily removed or transplanted in the spring. Come winter, I crop the stems to the ground to make way for vibrant spring growth.

While propagation can be accomplished from seeds, cuttings and clump division in the winter, I have had great success transplanting new starts, being very careful not to disturb the tender new root system. From experience, I can say to never

transplant mature plants as the foot-long tap root won’t stand for it. Gaura can also be a successful container specimen as long as the soil depth is generous.

As a cut flower, Gaura is a feather-in-the-cap. For a stunner of a floral arrangement, cut and reserve the delicate stems to be poked in last-minute, giving your creation an inspiring boost of balance, height, and movement.

An interesting note on which to end: many native plants of Texas, including Gaura, were officially recorded by German botanist Ferdinand Jacob Lindheimer (1801-1879), being widely known as the “Father of Texas Botany.” After a storied odyssey upon fleeing Germany for America, Lindheimer arrived at the San Jacinto battlefield one day after the final battle of the Texas Revolution. From there he launched his solo mission to find and record native plants of Texas. Eventually settling in New Braunfels, Lindheimer was granted land on the banks of the Comal River. Thanks to conservation efforts, his home is now a house museum and his botanical gardens, now restored, are maintained by our kindred associates, the Comal County Master Gardeners Association. Sounds like a road trip!

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Gaura blooms Courtesy of Missouri Botanical Society Plant Finder



Lindheimer Pink Gaura Courtesy of Missouri Botanical Society Plant Finder



Pink Butterflies Gaura GCMG Database



White Butterflies Gaura GCMG Database



# Salvia greggii - Also known as Texas Sage, Cherry Sage, Autumn Sage, Red Chihuahuan Sage



Bronia Michejenko  
GCMG 2015

If you are a bit of a lazy gardener and love small flowers like I do, then *Salvia greggii* is the perfect plant for you. It is a Texas native and is named after Josiah Gregg (1806-1850), a botanist and explorer who discovered the plant in his travel throughout Texas. *Salvia greggii* is drought and salt tolerant, aromatic, disease and pest resistant, including deer and rabbits and attracts bees, butterflies and hummingbirds. The leaves can be brewed as tea or used as seasoning, and flowers are edible. It does not require fertilizing once established. *S. greggii* flowers from March all the way through December in the Galveston region with the heaviest blooming in the spring and fall. I grow them in my perennial garden under shrubs such as hibiscus; it takes the place of weeds, so I do not have to work hard weeding. The plant may die back in a freeze, but it reseeds itself and pops right back up in the spring. Some gardeners do not like this salvia because it does reseed itself in spots they do not want. I find it easier to pull up than grass and other weeds. The plant is not considered invasive.

From North Carolina State Extension: “*Salvia greggii* is a small, herbaceous perennial or somewhat woody sub-shrub in the Lamiaceae (mint) family. This sage prefers full sun but tolerates partial shade and afternoon shade in regions with high summer heat. Good locations for planting are slopes, banks, and naturalized areas. It can be used as a border, or mass planting in a children’s, butterfly, pollinator, or drought-tolerant garden.”

Growing two to three feet tall and wide, it can be found in the wild growing mainly on rocky slopes from New Mexico, West, Central and Southern Texas and into Mexico. It needs well-drained soil and tolerates rocky soil. It does not particu-

larly like clay gumbo soils. Too much water will rot the roots. A small amount of amendment with organic matter allows the plant to adapt. Different cultivars offer flower colors from red, pink, orange and purple, burgundy and some are mixed with white. Some have variegated leaves. The color range has been enhanced by breeding, resulting in many cultivars over the years. To encourage blooming, pinch back the stems. After the spring bloom, prune the plant one-third to one-half to keep the plant tidy. In winter cut the plant down to four to five inches from the ground.

Propagate by seed, softwood, and semi-hardwood cuttings and root layering. Rooting takes about three weeks. I have also transplanted small plants from one garden to another successfully, just make sure you water well for a couple of days. I have also moved larger more established plants; just prune them down to four inches from the ground.

If you are a novice gardener, *Salvia greggii* will make you look like a gardening expert with very little maintenance.

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All photos by MG Bronia Michejenko

# Creating a School Habitat Garden or If You Plant It, They Will Come



Doris Durbin Heard  
GCMG 1990

A school habitat garden is a place on school grounds where wildlife can find shelter, food and water. Many of our local public and private elementary schools would like to have a habitat garden to help connect students to nature, but most do not have the staff, knowledge or time to create and maintain such a garden.

If you decide you would enjoy creating a school habitat garden, you first need to get the principal's support, and then gather a team to help you with the planning, planting and year-round maintenance of the garden. Your team needs at least one enthusiastic teacher who will be the liaison with the school faculty and staff, several parents and other interested gardeners. It would be wise to include a member of the school maintenance staff during the initial planning stages to help with the location and ensure their support since a lawn mower and/or weed eater can do a lot of damage in a short amount of time.

Selecting a site and determining the size of the garden is critical to the long-range success of the garden. Choose a location that receives at least six to eight hours of sunlight a day. It should receive good air circulation, but also have protection against high winds. It is essential to choose a site near a source of water. If you do not have a way to irrigate the garden regularly at the chosen location, then choose another site or be prepared to install an irrigation system. The garden must have regular irrigation during drought, school holidays and during the summer or the plants will die. At the very least, you need a soaker hose that is connected to a battery-powered timer on a faucet that can be set to regularly soak the beds. Your habitat garden can be as small as 9-ft by 15-ft and quite successful at attracting a variety of butterflies, pollinators, birds, amphib-

ians, etc. No matter the size, the key to the success of your garden is planting the right nectar plants and host plants for the butterflies so the children can see the larva stage of the different butterflies. Using native plants is key to the success of the garden, but there are many adapted plants that can also be included to attract wildlife to the garden year-round.

Plan the layout of the site ahead of time. Begin with a simple drawing. For a large site you can use a garden hose to help plan a curving path through the area. Paths can be created using weed barrier fabric and crushed granite placed on top. If you have a limited budget, put most of the funds into bed preparation and into an irrigation system. Fall or early spring are the best times to plant. The plants purchased or donated can be small, but when they are placed into good soil that is regularly watered and has good sunlight, they will grow rapidly and fill the beds in no time. Bring in good garden soil and build the beds up eight inches or more above the ground level to assure good drainage. Avoid accepting or purchasing just any blooming plant. Make wise choices in your plant selections, particularly if you have limited space. You want great pollinator plants, host plants of various heights, something blooming year-round and some evergreen plants placed so the area looks intentionally planned. A shallow birdbath and a small pond or bog will attract a variety of wildlife. Placing a few large rocks or small movable stumps/logs around the garden will create places for insects to hide and be found by the children. A bird feeder and native bee box are also great additions. In the fall, the students can participate in sowing wildflower seeds in or near the garden and enjoy the blooms in the spring.

A habitat garden can be used for a variety of teaching programs: science, art, photography, creative writing, etc. If you provide a place to sit in the garden, it can be a perfect place for



All photos by MG Doris Durbin Heard





“...where wildlife can find shelter, food, water...”

counseling. Sit, decompress, and enjoy nature.

Visit the garden at least once a week year-round to maintain it – weeding, pruning, etc. Have workdays that include parents, students and school staff. To help connect the students and the teachers to the garden, you can regularly take photos of the wildlife and blooming plants. These photos and a brief description can be posted on a bulletin board in the school or an exit door leading to the garden. Name these small posters *Nature Detective* and everyone will enjoy searching for them in the garden.

Some favorite plants for a school habitat garden:

**Small Tree or Shrub Perennials:**

Buttonbush (*Cephalanthus occidentalis*)

American beautyberry (*Callicarpa americana*)

Turk's cap (*Malvaviscus arboreus* var. *drummondii*)

Texas lantana (*Lantana urticoides*)

White mistflower (*Ageratina havanensis*)

**Herbaceous Perennials:**

Blue mistflower/Wild ageratum (*Conoclinium coelestinum*)

Native milkweed (*Asclepias perennis*)

Purple coneflower (*Echinacea purpurea*)

Mexican hat (*Ratibida columnifera*)

Beebalm (*Monarda fistulosa*)

**Wetland Plants:**

Pickernelweed (*Pontedaria cordata*)

Southern blue flag/Louisiana iris (*Iris giganticaerulea*)

**Herbaceous Annuals:**

Indian blanket (*Gaillardia pulchella*)

Black-eyed susan (*Rudbeckia hirta*)

**Vines:**

Passionflower (*Passiflora incarnata*)

Coral honeysuckle (*Lonicera sempervirens*)

Crossvine (*Bignonia capreolata*)

**Small Trees:**

Eastern redbud (*Cercis canadensis*)

Mexican Plum (*Prunus mexicana*)

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All photos by MG Doris Durbin Heard

# Native Milkweeds of Texas



Karyl Norcross  
Mehlman  
GCMG 2022

Milkweed, Monarchs, and Migration – three terms inexorably linked to growth and survival of the milkweed plant and the Monarch butterfly (*Danaus plexippus*). Possibly the most beautiful and well-known butterfly in existence, the Monarch is nearly totally dependent on the milkweed for food, reproduction and passage through four stages of development from egg to caterpillar, to chrysalis to butterfly.

Many thousands of years ago, this symphony of commonality developed in Mexico and eventually extended as far as Canada, northern regions of North America, and even Europe.

Milkweed belongs to the genus *Asclepias*, which consists of 130 species. Common to all is the unique structure of its flower: five is the magic number. On a base of five petals sits a flower, often of a very different color, with five hoods surrounding five horns surrounding the stigmatic disc. The shape and color of these elements differ and serve, in part, to identify the species.

All milkweeds are not equally tasty or equally good for monarchs. Of note is the species *A. curassavica*, also known as Tropical milkweed, that is native to regions south of the continental U.S. This non-native plant is so tasty that it discourages butterfly migration and results in overcrowding even to the point where larvae run out of food. It puts butterflies at higher risk of being infected by OE (*Ophryocystis elektroscirrha*) parasites. (See Anastas, Chris. *Gulf Coast Gardening*, July-August 2023). Monarchs are also subjected to winter freezes, and massive die-offs have been observed in the southern states. Gardeners are urged to cut back these plants every fall and to replace them with native species.

## Brief descriptions of 10 of the 37 species native to Texas

1. *A. fascicularis*, also known as Narrowleaf milkweed and Mexican whorled milkweed, is hardy in Zones 6-10 and is native to parts of western U.S. It is the most widely distributed milkweed in California and blooms from May to September. Its long growing season makes it a great late-season host for monarchs preparing to migrate south. Flower heads are white and soft pink. The plant reaches 20 to 40-inches tall and leaves are narrow, unlike most milkweeds. It is an aggressive spreader and is highly poisonous for cattle, making it unpopular in agricultural areas. It requires full sun and is drought tolerant.

2. *A. texana* (Texas milkweed or White milkweed) is an herbaceous perennial that is native to and has a wide distribution in Texas. *A. texana* is endemic to moist canyons in the Edwards Plateau Ecoregion. Slender stems give rise to oblong-elliptical



*Asclepias perennis* Courtesy Andy and Sally Wasowski,  
Lady Bird Johnson Wildflower Center



*Asclepias stenophylla* Courtesy Janice Lynn,  
Lady Bird Johnson Wildflower Center



*Asclepias speciosa* Courtesy James Reveal,  
Lady Bird Johnson Wildflower Center



*Asclepias tuberosa* Courtesy Joseph A. Marcus, Lady Bird Johnson Wildflower Center



## “All milkweeds are not equally tasty... for monarchs”

leaves and small white flowers. It blooms from May to September and is described as toxic.

3. *A. tuberosa*, known as Butterfly weed or Orange milkweed grows in Zones 3-9 and reaches 2 to 3-feet. It blooms from May to September. Its fragrant flowers grow in clusters two to five-inches across and are brilliant orange or yellow. Its dark green leaves do not produce the same milky sap as other species of milkweed in Texas. *A. tuberosa* has deep taproots and does not need watering once it is established. It does not transplant well and should be started from seed.

4. *A. variegata*, White-flowered milkweed is most common in the Southeastern U.S. and is native to Canada and eastern North America. It grows to 1 to 4-feet and is propagated by seed. Its umbels have up to 30 white flowers, creating a spherical white ball that resembles a snowball.

5. *A. perennis*, commonly called Aquatic or Shore milkweed, is hardy in zones 8a to 10b. Unlike other species native to the U.S., *A. perennis* seedpods lack the hairy silk that helps with seed dispersal, and seeds are dispersed not by wind but by water. It is the only milkweed whose seeds do not need to winter-over. This species requires partial shade and soils that are moist or wet. It grows from one to three feet tall and has white blooms from May through September.

6. *A. viridis*, also called Green antelopehorn or Green milkweed, is closely related to *A. asperula* in distribution and color. Both flower from April to September in the southwest U.S. Its blossoms are white with a dark purple center. A toxic milky substance is exuded when the plant is broken apart.

7. *A. incarnata*, called Swamp milkweed and also known as Pink milkweed, is native to eastern Canada and most of the U.S. It is hardy in Zones 3 to 9 and can reach up to five-feet tall. It blooms from mid-spring to early fall. Flower clusters are deep pink, and multiple stems are able to grow from the same root crown giving a bushy appearance. White varieties also exist. *A. incarnata* grows best in wet to moist soil and is not tolerant of hot or dry conditions.

8. *A. pumila* (Plains milkweed) grows from Montana to Texas flowering from July to August. Leaves are unusually thin at 1-mm broad, 2-4 cm long, and are abundant. Flowers are small as well, and blossoms have white centers and rose accents on petals and hoods.

9. *A. rubra*, or Red milkweed, is widely distributed over the southeastern U.S. It blooms from June to August. Flowers are a distinctive dull red to pinkish-purple.

10. *A. speciosa* (Showy milkweed) is widely distributed from east of the Mississippi to the west coast of the U.S. and into Canada. The plant is described as having densely white-tomentose (short hair) throughout and showy, very large purplish rose flowers.

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*Asclepias incarnata* Courtesy Stephanie Brundage, Lady Bird Johnson Wildflower Center



*Asclepias variegata* Courtesy Carolyn Fannon, Lady Bird Johnson Wildflower Center

# Homegrown National Park: Building Networks for Life



Michelle Thompson  
GCMG 2017

To know the state of an ecosystem, just ask an entomologist. And if there is such a thing as a “celebrity insect specialist,” I have my favorite, Dr. Doug Tallamy. I was very excited when I learned that he was coming to the Houston Botanic Garden (HBG) on November 11, 2023. After reading a couple of his popular books and watching his informative videos, I was increasingly following his advice. His shared knowledge was always inspiring and motivating, but very much held a sense of urgency.

He is the Professor of Agriculture and Natural Resources in the Department of Entomology and Wildlife Ecology at the University of Delaware where he has taught insect-related courses for 43 years. Besides teaching various ecology classes, his research activities include the impact of alien plants on native ecosystems and plant-insect interactions. Dr. Tallamy has authored four books, *Bringing Nature Home* (2007), *The Living Landscape* (2014), co-authored with Rick Darke, *Nature's Best Hope* (2020) and his most recent book, *The Nature of Oaks* (2021), which won the Horticultural Society's 2022 book award.

At the HBG seminar Dr. Tallamy started off sharing some startling statistics — North America has lost 3-billion birds in 50 years, 1-million species face extinction (UN report), and two-third of the earth's wildlife is gone (since 1970, World Wildlife Fund). The insect apocalypse is here. Since insects are responsible for a large portion of plant pollination, some 40-percent of earth's plants face extinction. Yikes! It's not looking good for planet Earth.

Dr. Tallamy continued by noting that our natural areas are not large enough to sustain the nature that sustains us and urges us to find ways for nature to thrive in human-dominated landscapes. We need to create viable habitats in between existing habitats. Your property is part of your local ecosystem, so whatever you do on your property impacts the entire ecosystem. Use plants in your landscape that host the insects that support the food web. Native plants provide the most benefits. I began looking at the plant “real estate” in my yard in a new light. “It is not the presence of non-native plants that destroy food webs. It is the absence of native plants,” he explains. Many insects evolve with a specific native plant as a food source or host plant. A commonly known insect that requires a specialist plant is the Monarch butterfly. It will only lay eggs on milkweed plants, being the host plant it evolved with. Eliminate the host plant and you eliminate the species that relies on it.

Now, think about the benefits of neighbors, property owners, land managers and farmers planting native plants and removing most invasive plants, and how this could grow across the collective efforts of each city and state. These new habitats would add millions of acres of regenerated biodiversity and ecosystem function across the country with what Dr. Tallamy has coined Homegrown National Park® (HNP). HNP is a non-profit organized to encourage the creation of 20-million acres of native plantings in the U.S. with small efforts of many people converting portions of privately owned grassy areas.

Dr. Tallamy offers a few key areas to focus on.

- Reduce the area of lawn
- Plant more natives
- Remove invasives
- Protect natural areas of your property

It must become common knowledge that every landscape has four ecological functions:

- Support food webs
- Sequester carbon
- Clean and manage water
- Support pollinators

Dr. Tallamy considers caterpillars an extremely important part of the food web. To sustain food webs, we need lots of caterpillars. Caterpillars transfer more energy from plants to animals than any other plant eaters. Since many species of birds rear their young predominately on a diet of caterpillars, they are essential for the continuation of many bird populations. The discovery of the correlation between insect declines and the decline in specific bird populations in his local area is given great detail in his books. He also shares amazing color photos of moths and moth caterpillars, habitats that are the result of planting native trees and plants on his large southeastern Pennsylvania farmhouse property that was once mostly grass and invasive plants.

Plant keystone species: they contribute the most to ecosystem function. Dr. Tallamy recommends the use of the *Native Plant Finder* by the National Wildlife Federation at <http://www.nwf.org/NativePlantFinder>. This useful guide lists plants by name and identifies the butterfly and moth species that use it as a host plant. You may also research associative lists from Native Plant Society of Texas and Lady Bird Johnson Wildflower Center's Native Plant Database.



## “Find ways for nature to thrive...”

Other important recommendations are to reduce light pollution because this can have an affect of reducing insect populations by disrupting biological cycles. We can reduce nighttime light pollution with yellow light bulbs and motion sensor devices for security lights.

Personal backyard mist spraying or fogging can have limited success controlling mosquito as it only affects the adults and can affect non-target insects. Dr. Tallamy stated, ‘Fogging kills only 10 to 15-percent of adult mosquitos.’ It is best to eradicate mosquito in the larval stage. I suggest using mosquito dunks, a formulation of the bacterium *Bacillus thuringiensis israelensis* (Bti) for pond management. Also, managing your landscape to reduce standing water that can harbor pest species like mosquito, and building a mosquito larvae trap that is called a mosquito dunk bucket. It’s easy, affordable, and directions can be found online.

Finally, consider joining HNP at [homegrownnationalpark.org](http://homegrownnationalpark.org), put your property on the map and promote

good earth stewardship.

Dr. Tallamy recommends the following books: *Half-Earth: Our Planets Fight for Life* by Edward O. Wilson and *The Sixth Extinction, An Unnatural History* by Elizabeth Kolbert.

*All flyers and photos used with permission from Homegrown National Park®*

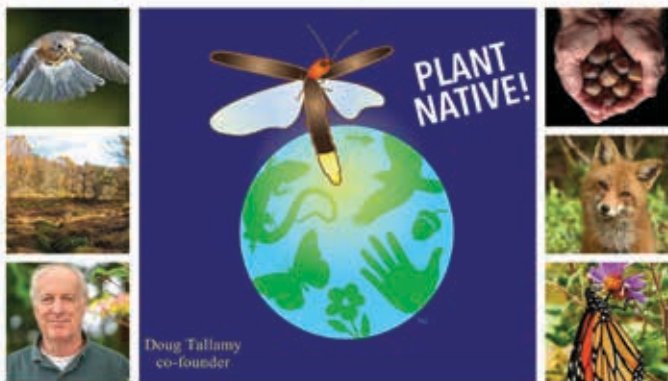
## Keystone Species

### “Native Plant Finder” National Wildlife Federation

<http://www.nwf.org/NativePlantFinder/>

Quercus	Native oaks	Solidago	Goldenrods
Prunus	Native cherries	Asters	
Salix	Native willows	Helianthus	Sunflowers
Carya	Hickories	Solanum	Nightshade
Populus	Poplars	Fragaria	Wild strawberry
Acer	Native maples	Nictiana	Wild tobacco
Ulmus	Elms	Lactuca	Wild lettuce

## Get on the HOMEGROWN NATIONAL PARK BIODIVERSITY MAP



Each of us can be part of the largest cooperative conservation movement to REGENERATE BIODIVERSITY  
- No experience necessary.

HOMEGROWN NATIONAL PARK® is Doug Tallamy's science-based grassroots call-to-action to **plant native** and **remove invasive plants** to regenerate biodiversity and ecosystem function. Why? - Because every human being on this planet needs diverse highly productive ecosystems to survive.



Photo courtesy of  
[tyrantfarms.com](http://tyrantfarms.com)

## Please Do Not Disturb!...and More on Helping Insects Overwinter



Hedy Wolpa  
GCMG 2018

I was surprised by a solitary bee under the leaf litter in late November. They are not usually aggressive toward humans unless they feel threatened, but I had accidentally disturbed its nest among some irises under an oak tree. Actually about 70% of the world's 20,000-plus species of bees live solitary lives and overwinter and lay eggs underground. Bees are not alone in this

matter. Many insects spend the colder months hiding in our garden beds.

As temperatures drop and the days shorten, many insects enter their diapause. Similar, but not quite like hibernation, insects in diapause are in a state of suspended development. For some insects, the "pause" may come as eggs, larvae, or pupae. When warmer weather and longer days indicate that springtime is near, those insects emerge from their overwintering nests in a new stage of their development. For example, they may enter diapause as eggs, but emerge as larvae. There may be significant metabolic changes in size, appearance, and behavior. In contrast, animals that hibernate, take bears for example, arouse in springtime after a sleepy and slow winter rest, and they still look like bears, and they resume their behaviors as bears.

Unique to the insect world, some insects will enter diapause off and on throughout cold weather months. A fuzzy caterpillar, like the wooly bear caterpillar, and even some flying insects can produce a substance, glycerol, that acts as antifreeze and enables them to tolerate temperature extremes. Another example is the Mourning Cloak butterfly that is often the first butterfly we see in spring because it also produces glycerol during the winter months and survives as an adult through

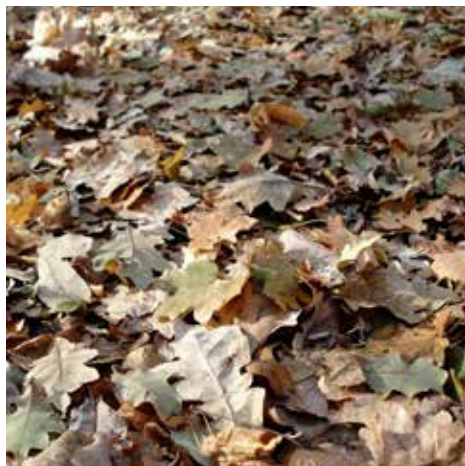
winter. Other insects (stick insects) drop their eggs into leaf litter, or into hollow twigs (bee species), where they wait for warm weather to emerge as nymphs, then mature to adults and lay eggs the following fall. There are butterflies and moths that overwinter as pupae, such as Eastern Swallowtails, and the Hummingbird Clearwing moth, also known as the Sphinx moth. Dragonflies and mayflies overwinter as nymphs and continue to mature until their adult stage in spring. Lady beetles simply snuggle down in the leaf litter as adults and emerge in spring to continue their life cycle.

There is a lot going on under the leaf litter besides harboring insects through the winter. The leaves decompose with the help of billions of microbes, as well as earthworms, fly larvae, snails and millipedes. As decomposition continues, nitrogen is released into the soil, providing nutrients that support desirable plant life and suppress weed growth.

There is another fine reason to leave that leaf litter alone, and even let it pile up well into early springtime. The layer of leaves and other detritus help insulate our plants during cold weather much better than ordinary wood chips and mulch. An exception to leaving leaf litter is to protect the development of some varieties of fruit trees. It's recommended that you do remove dead leaves from the base of fruit trees to protect them from harmful insect pests that may emerge in spring as these trees begin to leaf out. It's possible that leaf litter under fruit trees may harbor fungal diseases that may be harmful to tree development. MG Herman Auer, class of 1983, concurs with our friends at Texas A&M AgriLife in this practice. He also says that allowing grasses to grow up to and around the base of fruit trees helps with insulation and prevents soil from eroding during wet winter months.



Mole cricket burrows in leaf litter as nymph or adult.  
Pixabay.com



Leaf litter provides shelter for overwintering insects.  
Pixabay.com



Burrowing bee.  
Pixabay.com



## *“...efforts of conscientious gardeners will pay off...”*

The U.S. Environmental Protection Agency has stated that leaves and other yard debris that we sweep, blow and bag accounts for more than 13% of our solid waste in the U.S. It contributes up to 33 million tons of debris each year, and, as it decomposes in a landfill, adds greenhouse methane gasses to the atmosphere. Plus, the leaf blowers and the trucks that are used to clear away yard waste also emit greenhouse gases.

But back to the overwintering insects and how they survive, since not all insects enter diapause. Here in southeast Texas, our winters are typically mild. It's very common to see bees, beetles, flies, roaches, ants, and non-insects like spiders when the temps are in the 60s and 70s and the sun is shining. They appreciate a source of water from small dishes and cups left in the garden. A few perennials continue to bloom if we have consecutive sunny days, and insects will find them. Cocoons and eggs of butterflies and moths develop inside the stems of plants and bushes that we have left alone. Birds find tiny seeds in flower heads that may look dead, but still have something to offer. We will find toads, lizards, even skinks hibernating in the leaves and soil. These creatures are important, too.

Climate change, with all its controversy, seems to bring weather extremes. With warmer winter temperatures in some zones, insects may become confused and emerge from diapause too early, resulting in an altered life cycle that is devoid of appropriate food resources. Weather that is too cold has an effect also. A prolonged and unexpected freeze may kill some predators and pathogens that normally would keep insect populations in check during summer months, resulting in a population explosion of some insect pests in our gardens during the peak of summer.

When spring finally arrives, the efforts of conscientious gardeners will pay off in a big way. If you have waited until late

spring, when the overnight temperature is about 70-degrees and before you begin your spring cleanup, many of those leaf and twig-insulated plants will begin to send new shoots and leaves up out of the leaf litter right on time. The time clock for insects is also ticking. The “signals” they get from Mother Nature include a rise in temperature, increased rainfall, and longer daylight hours. They begin hatching from eggs, emerging from cocoons, and coming up from nests in the soil.

This is very good news for spring gardeners. The life cycles of beneficial insects have a strong start when new life emerges after a well-protected winter diapause. They will be ready to eat, mate, and reproduce, and they'll need food, nectar and water sources. Emerging beneficial insects that have overwintered include ground beetles, bees, wasps, butterflies, lady beetles, moths and lacewings. These beneficial insects are your first line of defense against harmful pests in your spring veggie garden. Enjoy these winter months knowing that insects and plants are comfortably resting under your leaf litter.

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The Bee Conservancy - <https://thebeeconservancy.org>

Xerces Society for Invertebrate Conservation - <https://www.xerces.org>

Fallon, C. 'To Leave (the Leaves) or not to Leave: Survey finds Most People Open to Leaving Leaves to Benefit Wildlife'. *Press Releases*, National Wildlife Federation, 3 February 2024, <https://www.nwf.org/latest-news/press-releases/2023/10-2-23-leave-the-leaves>.

'Insect Life Under the Leaves'. *News*, Penn State University – Department of Entomology, 3 February 2024, <https://ento.psu.edu/news/insect-life-under-the-leaves>.

Richards, D. 'Recycling Leaves: Trash to Treasure'. Texas A&M AgriLife Extension – Travis County, 3 February 2024, <https://travis-tx.tamu.edu/files/2020/07/Recycling-Leaves.pdf>.



Caterpillar in leaf litter.  
*Pixabay.com*



Adult Mourning Cloak overwinters with “antifreeze” in its hemolymph.  
*Pixabay.com*

# Ask a MG: Milkweed Assassin Bugs and Monarchs



Briana Etie  
GCMG 2017

## Question: Do milkweed assassin bugs harm monarch butterflies?

We asked our Galveston County Master Gardener, Hedy Wolpa who has advanced training in entomology. She is a member of the Pollinator Habitat Team in the Discovery Garden.



Hedy Wolpa  
GCMG 2018

## Her Answer:

The full answer requires an understanding of the importance of this insect, *Zelus longipes*, known by its common name as the Milkweed assassin bug. It is a generalist feeder, which means it's a predator insect that feeds on a variety of soft-bodied prey in gardens and fields.

This can include mosquitos, flies, cucumber beetles, aphids, mealy bugs and caterpillars such as fall armyworms, cutworms, hornworms, cabbage loopers, and yes, sometimes even monarch caterpillars. They are beneficial to us by killing many of the insects we dislike (because they destroy our garden produce) which, in turn, help us use fewer pesticide products. Therefore, these bugs are important biological control agents, and should be considered beneficial in our gardens.

Milkweed assassin bugs, considered true bugs, have five nymphal instars before becoming full adults, and they are very hungry. The nymph strongly resembles other common insect nymphs with its bright orange head and midsection, long antennae, and long black, hairy legs. It has a piercing and sucking mouthpart that allows it to paralyze its prey before sucking out soft tissues. The nymphs are first seen in a cluster with their siblings, but they quickly disperse to begin eating and are usually solitary feeders, unlike the similar-looking orange Leaf-foot bug nymphs that tend to feed in big groups on your tomatoes. Since they hide, then ambush their prey, the name Assassin bug is appropriate.

The adult Milkweed assassin bug also resembles other common insects like the Milkweed bug, *Oncopeltus fasciatus*. Both have very distinctive orange and black bodies, antennae and wings, but the Milkweed assassin bug has a more protruding head and white markings on the legs. Adult milkweed bugs are flatter, longer, and they aren't predators of other insects. Milkweed bugs live on your milkweed plants in their immature stage, enjoying the sap and seeds. They are herbivorous. This insect is not harmful to your monarch caterpillars and butterflies, which also need the milkweed plant to survive.

It's doubtful that a Milkweed bug would ever cause enough damage to your milkweed plants to endanger your monarchs, and therefore can co-exist with your butterflies and caterpillars. If you have too many milkweed bugs and you think they are competing with your monarchs, you can pick them off by hand or use a stream of water to knock them off. Avoid using pesticide treatments as this may impair or kill your monarchs.

Spend a little time getting to recognize the differences and similarities between the nymph and the adult Milkweed assassin bug, Milkweed bug, and Leaf-foot bug, since they can look so similar. Each has its value in our gardens - as either predator or prey.

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Assassin bug Rebekah D. Wallace, University of Georgia, Bugwood.org



Assassin bug Johnny N. Dell Bugwood.org



## Walking Through an Ancient Woodland in Yorkshire, England



John Jons  
GCMG 2003

While recently visiting England, I had the opportunity to walk through an ancient woodland. This ancient woodland is located on the Bolton Abbey Estate and is called Strid Woods. An ancient woodland is legally defined as “a woodland that has existed continuously since 1600 or before...” Ancient woodlands are considered like rain-

forests in the tropics and are often the home to rare and threatened species. For the gardener, native plant enthusiast, or naturalist, this is like having the opportunity to visit the European version of a tropical rain forest.

The Bolton Abby Estate is a large tract of land on the Yorkshire Dales near the town of Bolton Abbey. It is located in Wharfedale, North Yorkshire, England. This estate was listed in The Domesday Book (1086 AD) as containing multiple estates consisting of 9,240 acres of land. Today the estate consists of 33,000 acres and contains six areas designated by the United Kingdom as “sites of special scientific interest” which may be biological or geological, and is a legal conservation designation denoting a protected from development and/or change area. Because Strid Woods is an ancient woodland, it is designated as a site of special scientific interest. Also on the estate are the ruins of an Augustinian monastery called Bolton Priory that was founded in 1154 and was closed in 1539 by King Henry VIII.

To further compliment the historical natural and plant beauty of this ancient woodland, Strid Wood is located on a unique section of the river Wharfe. This river is the boundary between west and north Yorkshire. This section of the river within the ancient woodlands is called “The Strid” which is derived from the old English word *stryth* meaning “turmoil.” This is based on a section of the river that is within Strid Woods that contains a narrowing of the river from approximately 90-ft to about 6.5-ft in less than 300 feet with a series of deep rapids that are cut within the sandstone.

Along both sides of the river and through the ancient woods is well-maintained walkway. The walkway starts in an area on the estate called Cavendish Pavilion. It follows the river through the ancient Strid Woods and past The Strid for about two miles. You can then cross the river by walking across Barden Bridge and walking back through the ancient woods to Cavendish Bridge that is opposite the pavilion. Along the way you will have the opportunity to enjoy all the unique plants within the ancient woods, the scenic Wharfe river, The Strid, and the occasional wildlife. After the walk you can enjoy a nice cup of tea and lunch in the pavilion. For more pictures of this ancient woodlands, please view my YouTube video called *Walk Through an Ancient Woodland in Yorkshire, England*. <https://youtu.be/OVCuXMGWF1c>



MG John Jons



MG John Jons

## Sonoma Botanical Garden - A Place for All Seasons



Barbara Lyons  
GCMG 2014

California has nearly 40 garden locations on the Reciprocal Admissions Program (RAP) which are open for visits year-round. One of the gardens my husband Ed and I have visited multiple times on our nearly annual post-retirement trips to Sonoma County, California is Sonoma Botanical Garden (formerly Quarryhill Botanical Garden), 12841 Sonoma Highway, Glen Ellen, CA 95442; <https://sonomabg.org>. The location of the garden is just north of the city of Sonoma in the heart of wine country. Both self-guided and docent-guided tours are available. The original garden site is about 24 acres of plants native to the temperate East Asian climate zone. Founded in 1987, the goal of Quarryhill, a non-profit educational and research garden, was to preserve and display the flora of various Asian areas. More recently the renaming of the garden to Sonoma Botanical Garden occurred to include property adjacent to the original Quarryhill site along with the 22-acre former 3 Springs Ranch. This acquisition nearly doubled the size of the property and its mission morphed into including two diverse ecosystems, one man-made and the other being the natural terrain of the area.

To establish the Asian plant collection, horticulturists visited locations in Asia, including China, India, Japan, Tibet and Nepal, where ground seeds were collected for transport back to the United States, accounting for about 90-percent of the collection's species. Once back in California, the seeds were propagated in the on-site greenhouse so no plants were sacrificed back in the native habitat of the specimen plants. An interesting fact is that part of the collection's mission is to serve as a repository for restoration of native habitats in Asia, which may be

compromised due to environmental conditions or habitat declination from encroachment by human development.

The Asian Woodland section is set in a former rock quarry and features an arbor, terraced lawn, upper and lower ponds, Asian-style bridges, Chinese pagoda or ting, and a majestic overlook adjacent to the prayer flag area as well as a great variety of plant species. The prayer flag area is at one of the top borders of the property and has a fabulous view of the garden, pond and nearby valley and mountains. There is a bench next to the most fragrant rose bush which is often filled with blooms and bees. This is a true multisensory experience that ranks as one of my personal favorites. Depending on the time of year, many different flowers may be in bloom such as azaleas, dogwood, rhododendron, iris, lilies and wild Asian roses. There is always the backdrop of an abundance of various evergreens and other interesting deciduous trees. One such deciduous tree type is *Acer pentaphyllum*, a variety of maple which is expected to become extinct in China in the next decade. Many are planted throughout the garden and serve a seed stock assuring that the tree does not suffer the fate of total extinction.

The Oaks and Chaparral area is like a scene out of an old western movie where you expect people on horseback to come out of the mature oak tree woods onto native grasslands. Due to the fact that this area has just recently opened to the public, we have not yet been on this site but have admired it through the fence when it still displayed the 3 Springs Ranch sign. It appears to have only one trail that connects to the Asian Woodland section at a point on the property after the greenhouse and administrative areas.



Three springs ranch All photos by MG Barbara Lyons



The California Oaks Section



Arbor area



## *“...a repository for restoration of native habitats”*



Bench area to sit and enjoy the view



Prayer flags



Top of the property All photos by MG Barbara Lyons

There are some steep walkways which traverse 50-feet of elevation from the trail entry point at the gift shop. While some of the pathways are hardened surfaces, some are natural pathways off the main trail including some rock stairs. Since there is elevation change and some of the main surfaces are packed earth and rock, there is some occasional embedded rock or soil erosion making the surface uneven. Sturdy shoes and good walking skill is required; it is not a place friendly to people requiring wheelchairs or walkers. There is no transportation available within the garden. There are several benches throughout the site to rest or soak in the special scenery and ambiance. It appears that the elevation change is not as steep when beginning at the California Oaks trail rather than the Asian Woodland trail which begins with a quite challenging hill.

In 2017, Sonoma County was devastated by fire and the area along Route 12 was no exception. Due to mitigation measures, including clearing fence lines of tinder and a thorough watering-in of the garden as the fire advanced, the garden was spared. The fire came up to the fence of the garden but did not cross over which was quite a relief. This event demonstrated the vulnerability of this special place, one which has become more common.

This garden is one of my favorite gardens I have ever visited. Each visit offered something different in terms of plants in bloom and wildlife enjoying the area. One time a gathering of tiny butterflies were feeding on the sap of a tree and another a variety of birds were sighted. If interested in birdwatching, be sure to download the brochure on birds from the website before visiting. Beware, there are rattlesnakes and mountain lions that inhabit the surrounding environment and can breach the fences so caution is advised. We have not seen evidence of these creatures but one should keep a cautious eye out for them. Picnics are allowed with picnic tables scattered throughout the garden, but I suggest waiting until your visit is concluded and eat at the tables well-shaded at the entrance, near an adjacent Cabernet vineyard. It is the perfect setting for a leisurely lunch.

### **References:**

American Horticultural Society Reciprocal Garden Network - <https://ahsgardening.org/gardening-programs/rap/>

Sonoma Botanical Garden - <https://sonomabg.org/>

Sonoma County, CA - <https://www.sonomacounty.com/>



## Photo Gallery. Photographs by Vicki Blythe



Vicki Blythe  
GCMG 2018



This month we celebrate the wonderful work of MG Vicki Blythe (Class of 2018). In the Discovery Garden and around the county (and beyond) she shares incredible photos of native plants with butterflies, incredible produce and more. Here she shares five of her favorite photos.



# Discovery Garden Update



Tom Fountain  
GCMG 2008

Our subject of conversation at the Discovery Garden is often about the weather. After one of the hottest dry years on record, our cooler wet winter was welcome, although we could have done without a freeze. Temperatures in our part of southeast Texas have continued to be a little above normal while rainfall the past few months has almost doubled. The NOAA extended forecast indicates temperatures will be near normal into summer with precipitation near normal this spring.

For me, early spring is the best time to be in the garden. The weather is nice, plants are turning green, and flowers are starting to bloom. It is also a good time to take care of needed garden repairs. In (Fig.1) Ronnie Corley is almost finished replacing one of the old troubled wooden beds with a new form of light concrete bed for us to test.

In early spring the garden beds always need lots of help with cleanup from winter, including everything from weeding and getting rid of winter leftovers to tilling and planting spring crops. This winter the tomato test beds were used to grow cabbage, cauliflower, and broccoli. In (Fig. 2) Lynne Slaton, Nancy Hiefner, Sven Bors-Koefoed, and Tina Fincher are harvesting these beds. Next, it will be time to get the test beds ready for the new Master Gardener class. They will start their own tomato trials and learn how to conduct a study and see which tomato varieties are best in our area.

Gardeners can always get new ideas and participate in some hands-on demonstrations here. Our garden is full of great gardeners with a world of knowledge that they are willing to share. This spring we had GCMG Herman Auer sharing his knowledge of pruning and grafting fruit trees out in the orchard. In (Fig. 3) he is teaching Debbie Espinosa and Charlotte Avant how to prune pear trees.

The vegetable garden crew (Fig. 4) John Ely, Wendy Baldwin, and Debby Brady have just finished planting some onion sets in one of the many community beds. This group plans, plants, harvests, and takes care of the beds. They can almost always use a little help if you have some time. The produce from these beds goes to several different community food banks in the county.

If you haven't been to see the Pollinator Habitat Garden, well it has grown. It has more than doubled in size and will look amazing once it has all planted. Pictured in (Fig. 5) Hazel Lampton, Hedy Wolpa, and Sue Bain are in the garden where they were pulling weeds and thinning plants.

This winter freeze was really hard out in the Serenity Garden. It is looking a whole lot better thanks to Jamie Hart and Michelle Turner's efforts.

Early spring is also when we have our on-line spring plant sale, which was very successful again this year thanks to all who participated. The places that plants start out that help make the sale successful are in the Greenhouse and with our Master Gardener grown plants. In (Fig. 6) Briana Etie and Pat Saenz are labeling and watering plants in the Greenhouse.

The Discovery Garden provides lots of opportunities to learn and participate. You are always welcome to come out and see what we do and tour the garden on Thursdays. Hope to see you in the garden, and until then take care.



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# Welcome Interns Class of 2024

The Galveston County Master Gardener Class of 2024 began their classwork on January 30. The class has 21 interns. The first day was full of information, introductions, food and fun.

Samuel Clark, son of Ken Clark and representing the Ken Clark Working For You Foundation presented new intern Eva

Livy with a scholarship check. The foundation sponsors the GCMG work as an organization and covers a future master gardener's cost for the class.

All photos by MG Karolyn Gephart





# Seasonal Bites: A Perfect Time for Soup!



Sandra Gervais  
GCMG 2011

Spring is here—so says the calendar. But since this is Texas, we keep a watchful eye on her and the weather reports. As gardeners, we can't resist the urge to work outside in the sunny, springtime weather, cleaning up brown, mushy, frozen plants, trimming dead branches, pulling weeds before they take over everything and planning for the coming months. We do all of this hopefully, but always with an eye on the Farmer's Almanac and our local favorite weather person. We've been caught out before by late freezes.

So let's look at a few easy but unusual recipes, good any time of the year. The first is a cabbage salad that Galveston County Master Gardener Ed Klein and his wife Adel brought to one of our meetings. It uses Top Ramen noodle packets, sesame seeds and sesame oil for a slightly Asian taste.

And for something sweet, here's the irresistible combination of chocolate, caramel and shortbread. Bakers put large pans of this on display in their windows in Scotland, where it's called "Millionaire Shortbread." Yes, it is that rich!



## Cabbage Salad and Dressing

### Salad:

1 average size head of green cabbage, chopped, rinsed and well drained.  
8 or more green onions, chopped, rinsed and drained.  
8 tablespoons of slivered almonds (about 1/2 cup)  
8 tablespoons sesame seeds (about 1/2 cup)  
2 packages of Top Ramen Noodles, crushed (use any flavor; discard seasoning packs.)

Mix cabbage and green onions in large bowl and set aside.  
Toast almonds and sesame seeds separately in hot, dry skillet using no oil.  
Set it aside.

### Dressing:

4 tablespoons sugar  
1 teaspoon seasoned salt  
1 teaspoon pepper  
2 teaspoons salt  
3/4 cup vegetable or canola oil  
1/4 cup sesame oil  
8 tablespoons rice vinegar

Mix together all dressing ingredients.  
Just before serving, add toasted almonds, sesame seeds, and crushed Top Ramen noodles to the cabbage.  
Add the green onions.  
Add uncooked dressing last and mix well.

Note: adjust salt and seasonings to your taste.



## Chocolate Caramel Shortbread

1 1/4 cup soft butter not melted. (Note: divided use.)  
1/2 cup granulated sugar.  
1 1/3 cup all-purpose flour.  
1/2 cup brown sugar, packed.  
1/2 cup sweetened condensed milk.  
2 tablespoons of Karo syrup.  
1 cup dark chocolate chips (can use semi-sweet).

Mix together 3/4 cup soft butter, granulated sugar and flour until crumbly. (Can mix with hands, spoon or even use a food processor.) Press together into bottom of 8-inch square pan.

## Book Review: *This is Your Mind on Plants*



Lisa Belcher  
GCMG 2014

Award winning author, Michael Pollan has written books for over thirty years on topics ranging from horticulture to cooking. His book *This is Your Mind on Plants* is a very unique perspective on three topics. The three-part book curiously introduces three substances; opium, caffeine, and mescaline and shares with the reader the history, cultural and scientific as-

pects of all three, with the author partaking of

each. With each plant, Pollan seeks to find and understand how each plant can alter, change, relax or have us enter a hallucinogenic place.

The first part of the book deals with opium. The author shares with the reader an article titled "Opium for the Masses", which he wrote for Harper's Bazaar approximately 24 years ago. The magazine's request was for Pollan to grow opium poppies (*Papaver somniferum*) at home in his own garden and detail the effects of his harvest as well as the ethics of growing opium. Upon much research, Pollan realized purchasing poppy seeds from a garden catalogue was perfectly innocent as well as legal. It turned more sinister if the opium seeds were grown with the knowledge of their opium-producing qualities. Worried of the legal entanglements he may run into by printing a recipe for opium tea, he consulted a lawyer who advised him he may be risking 20 years in jail with a one million dollar fine. Quick edits and revisions were made for the publication of the article, but in this book, his original full piece is printed and published in its entirety. For those of you who love to grow poppies in their garden, Pollan reassures the reader they are safe, provided they do not read the rest of the chapter.

Part two addresses caffeine and takes us on a journey on how tea and coffee are produced and the effects of the stimulant caffeine. This chapter is full of the history, culture and discovery. Would you be surprised to learn during the Industrial Revolution workers were plied with copious amounts of tea

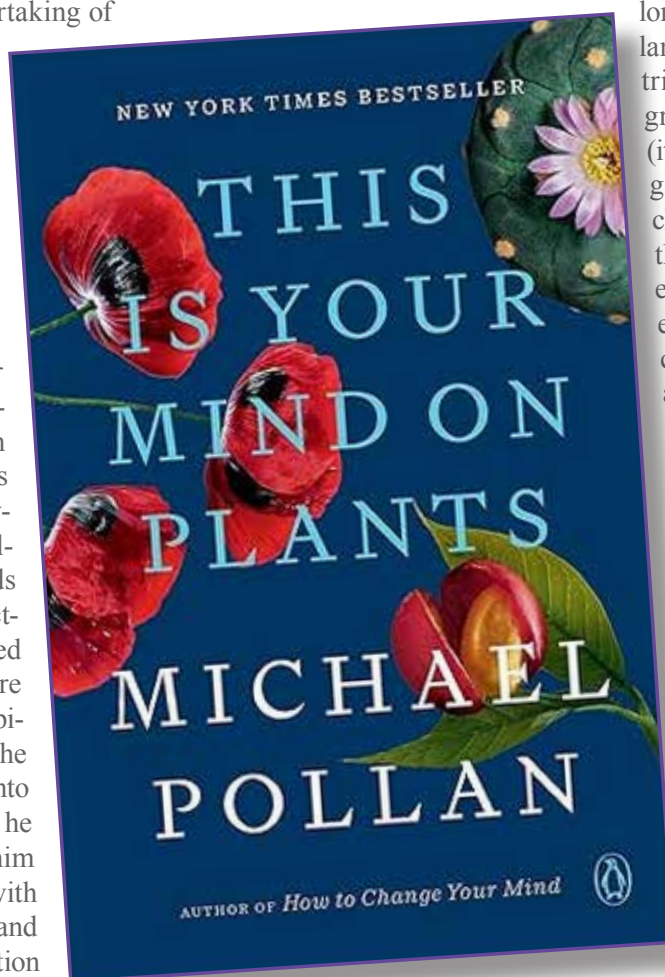
to keep them awake and work longer? Pollan asks the question: "Can tea and coffee benefit humanity?" Do they make you live longer, be more productive or harmful and keep you awake? To find out his own personal answer the author abstains from coffee, which at first sounded easy. Although more distracted at times and longing for a quick boost, Pollan admits to sleeping better than he has in years. Soon we are introduced to Humberto who cultivates coffee beans in Co-

lombia in South America. Pollan researched heavily on his trip to Columbia to learn how to grow and harvest coffee beans (it takes 30 beans to make a single cup). Regarding tea in this chapter, the author reflects how the beautiful Japanese tea ceremonies have a quite different effect on the drinker. In this case, it offers one a peaceful and calming "concentration and attention to the present moment."

Part three deals with mescaline, a hallucinogen that comes from button shaped seeds found in the peyote cactus. The cactus grows in only two places: Southern Texas and Northern Mexico and has been overharvested putting it on the endangered species list. Peyote has been used hallucinating for its effects for no fewer than 6,000 years. Skip ahead to the late 19<sup>th</sup> century and the

begging of the Native American

Church. It is a very interesting story with Pollan very conscious about being a white man writing about Native American culture, which is not his own. The author had planned to partake of peyote with a "group of Native Americans from several tribes on their annual pilgrimage" to Texas to gather the plant. Then COVID-19 hit. Later Pollan found a woman, Taloma, who was willing for him and his wife to partake in a ceremony not with peyote but another hallucinogenic which contains mescaline. The end of the book finishes with their "journey."







# Horticulture

## March Events

<https://txmg.org/galveston/>

### Veggie Garden Series: Peppers

03/9/24 9:00am – 11:00am

#### Gulf Coast Gardening Seminar

Learn origin of pepper plants, starting from seed, culture and growing tips, insect & disease control, and recommended varieties.

To register, visit: <https://galveston.agrilife.org/horticulture/>



### Urban Orchard Series: Growing Avocados

03/16/24 9:00am – 11:00am

#### Gulf Coast Gardening Seminar

Explore best variety selections for Galveston County. How to start plants from seed, tree planting tips and cultivation.

To register, visit: <https://galveston.agrilife.org/horticulture/>

### Fairy Garden Workshop

03/16/24 1:00pm – 3:00pm

#### Gulf Coast Gardening Seminar

Spark imagination and create your own fairy garden. Registration is limited and includes fee for materials.

To register, visit: <https://galveston.agrilife.org/horticulture/>



### Veggie Garden Series: Tomato Stress Mgmt., Pt. 3

03/23/24 9:00am – 11:30am

#### Gulf Coast Gardening Seminar

3rd part of the series will identify tomato diseases and insect stress, and how to minimize them to increase yields.

To register, visit: <https://galveston.agrilife.org/horticulture/>

### Veggie Garden Series: Cucumbers, Squash and Melons

03/23/24 1:00pm – 3:00pm

#### Gulf Coast Gardening Seminar

Learn best methods to grow cucumbers, squash and melons in your home garden. Including how to deal with specific insects and diseases.

To register, visit: <https://galveston.agrilife.org/horticulture/>



**TEXAS A&M**  
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**EXTENSION**

Galveston County Texas A&M AgriLife Extension  
4102-B Main Street (FM 519) La Marque, TX 77568

<https://galveston.agrilife.org/horticulture/> 281-309-5065

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# Horticulture

## April Events

<https://txmg.org/galveston/>

### Louisiana Iris

04/13/24 9:00am – 12:00pm

Gulf Coast Gardening Seminar

Learn species and hybrid types for our region, including cultivation information, how to obtain Louisiana iris and share them.

To register, visit: <https://galveston.agrilife.org/horticulture/>



### Nature's Good Guys: Beneficial Insects

04/20/24 9:00am – 11:00am

Gulf Coast Gardening Seminar

Take a closer look at beneficial insects and pest insects common to our gardens and landscaped yards.

To register, visit: <https://galveston.agrilife.org/horticulture/>



### You Too Can Be A Superstar Gardener

04/20/24 1:00pm – 3:00pm

Gulf Coast Gardening Seminar

Whether you are a novice or experienced gardener, learn information to assist you in choosing Texas Superstar® plants for your garden.

To register, visit: <https://galveston.agrilife.org/horticulture/>



### Open Public Garden Days

Every Thursday, 9:00am – 11:00am

Gardening with Master Gardeners

The Discovery Garden will be open to the public for visitors and gardening questions.

Location: in Carbide Park, 4102 Main St, La Marque, TX 77568



TEXAS A&M  
**AGRI LIFE**  
EXTENSION

Galveston County Texas A&M AgriLife Extension  
4102-B Main Street (FM 519) La Marque, TX 77568

<https://galveston.agrilife.org/horticulture/> 281-309-5065

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# 2024 Master Gardener Recertification Hours

Browse online to the members only webpage to review all hours: <https://txmg.org/galveston/membersonly/>

Date	Name of Program	Speaker	MG CEUs
1/6/2024	Wedge Grafting	Hazel Lampton, Debbie Espinosa	2.00
1/6/2024	Growing Peaches in Galveston County	Herman Auer	2.00
1/9/2024	January Mtg. - The Year Ahead 2024	Kevin Lancon, Frank Resch, Stephen B.	1.00
1/11/2024	L&L - Pesticides	Phoenix Rogers	1.00
1/20/2024	Planting Fruit Trees	Herman Auer	3.00
1/20/2024	Growing Great Tomatoes, Pt. 2	Ira Gervais	2.00
2/1/2024	L&L - Ken Clark Foundation update	Samuel Clark	0.25

## 2024 Recertification Hours for MGs

Total CEUs (Hours)

11.25

Last Updated: February 2, 2024

**Reminder:** In order to maintain your status as a certified Texas Master Gardener, each year you must complete a minimum of 6 hours continuing education, as well as 12 service hours. Additionally, those hours must be reported through the online Volunteer Management System or other means.

**MG John Mitchiner** with two varieties of cabbage harvested from the GCMG Cabbage Research beds. He harvested 10 heads weighing about 9.5 lbs. each. (Jersey Wakefield and Savoy varieties).

**MG Phil Cone** with a large harvested head of cauliflower. Photos by MG Linda Steber

**GCMG John Mitchiner**

**GCMG Phil Cone**

**Interested in volunteering?**  
Libbie's Place Beautification Bunch meets on the second Friday of each month under the direction of GCMG Mary Leonard. Libbie's Place Green Thumb Club meets on the first and third Friday of the month. The area is a beautiful handicapped accessible garden for the clients of Libbie's Place to enjoy. MGs trim trees, weed and plant vegetables to keep the area looking beautiful.

**For more information:**  
<https://www.moody.org/libbie-s-place-senior-day>  
Libbie's Place is located at 5402 Avenue U, Galveston.

**Ginger Benson** has been named the **County Administrator for the Galveston County Extension office**. Congratulations to Ginger who is also a GCMG and serves as Extension Agent for Family and Community Health at the Extension office.

**Congratulations to the 2024 Board & Officers**

**Board Members**  
Chairman Frank Resch  
Secretary Linda Steber  
Member Judy Anderson  
Member Ira Gervais  
Member Ed Klein

**Officers**  
President Kathy Maines  
Senior VP Kevin Lancon  
Secretary Briana Etie  
Asst Sec Pam Hunter  
Treasurer Debbie Brizendine  
Asst Treas Sharon Zaal

**TMGA Delegates**  
Jan Fountain  
Tom Fountain

# Small Native Trees: Mexican Plum, Parsley Hawthorn



Stephen Brueggerhoff  
Extension Agent - Horticulture  
Texas A&M Agrilife Extension  
Service - Galveston County

I receive questions from residents for recommendations of trees appropriate for the home landscape. My advice includes an awareness and documentation of existing conditions; size of the lot, use of the outdoor environment, buildings adjacent to the home (height), existing vegetation, H.O.A. and municipal restrictions, and location of water source.

Additionally, I ask the client their intent for planting a tree; is the reason single or combined choices such as aesthetics (seasonal leaf color or flower), food source for animals, erosion control, cooling by shading, etc.

On average, homes are built on a quarter acre (or less) lot. The size of the property and house, as well as measured footprint of the open space are foundational to the kind and size of tree that can be planted. Texas A&M Forest Service offers design and tree choice tools from *Texas Tree Planting Guide* (<https://texastreeplanting.tamu.edu>). The link to *Tree Planting and Care* section offers design considerations that I previously mentioned to think of the right tree for the right place in your landscape. The site also offers a *Tree Selector* section with choices for large, medium or small trees, as well as choices for leaf duration (deciduous or evergreen) and native trees. Imagining that you would like a unique small Texas native tree offering seasonal flowers and fruit for wildlife. Two that immediately come to mind are Mexican plum (*Prunus mexicana*) and Parsley hawthorn (*Crataegus marshalli*).

Mexican plum is a deciduous tree naturally distributed from Kansas to Missouri, on down to Louisiana and into Central to Texas southeast Upper Gulf Coast Bend. Habitat and soil type is variable, found at woodlands edge in river bottoms to pastures. Each forms as a single-trunked, non-suckering tree. Considered to be a small stature tree to 35-ft. I have seen mature specimens measured at 25-ft tall, and I keep in mind that tree height can be affected by immediate environmental conditions and stressors such as soil compaction (foot traffic), drought and/or malpruning and not reach its full potential. The bark is interesting; members of the Rose Plant Family (Rosacea) produce reddish stems and remnant red coloration of the bark. This trees' bark varies as it matures; from a smooth and shiny mahogany color similar to a mature cherry tree, to contrasting striations presented within large, stacked chunky plates. The canopy can become somewhat dense, and each leaf tends to curl with age. Leaves turn a copper-red color in fall, standing out amongst a mosaic of yellow and brown colors typically seen from other plants at this time of year.



All Mexican Plum photos by Stephen Brueggerhoff



## *“Focus on intent for planting a tree...”*



Mexican plum flowers prior to foliage emergence in late February and early March, providing a much-needed nectar resource for insects at winter's end. I adore the simple open petals expressed from each flower. The fragrance offered by Mexican plum flowers depends on your personal experience. I have caught a scent that is fresh like baby powder from a single tree. Compare this experience with senses bowled over from sweetly pungent fragrance offered from a crowd of trees. Pollination gives rise to 2-inch diameter berries that turn golden yellow color to magenta, and ripen August to September. The berries are edible and you can make an excellent jam with them, or if you prefer, a tolerable adult beverage.



Parsley hawthorn is a small stature deciduous tree (to 20-feet) with an open canopy that can be found scattered in open woodlands from southeast (Matagorda County) to the Piney Woods of northeast Texas, then distributed from Louisiana to southwestern Florida and on up to Virginia. Parsley hawthorn is an understory tree that performs best in dappled shade or at a woodlands edge exposure. Native habitat is described occurring in alluvial woods with sandy soil, in open areas of hardwood forests that seasonally flood. This habitat informs us that Parsley hawthorn is adaptable to differing soil types. The tree can be planted in landscaping with improved, well-draining soil and full sun exposure; however, attention to adequate irrigation is a must in these conditions. Like the Mexican plum, this tree expresses exfoliating bark as it matures but retains thorns scattered across its branches. The tree gets its common name from parsley-like foliage. Similar to the Mexican plum, Parsley hawthorn leaves stand out in fall with orange to crimson foliage. Flowers express mid-March through April. While the flowers are not very large, each shines with snow-white petals surrounding a cluster of prominent red stamens. Once pollinated, characteristic developing fruit are tiny oblong single berries that are persistent through fall, and good for birds and small animals.



There are many more small native trees that are appropriate for your needs, and resources such as Texas A&M Forest Service *Texas Tree Planting Guide* is a valuable tool. Always focus on your intent for planting a tree, be flexible with your choice dependent on existing site conditions and your aesthetics in choosing the right plant for just the right space. Until next month's newsletter, take care and I'll see you in the garden.

# Judy's Corner: Galveston County Monthly Meetings



Judy Anderson  
GCMG 2012

## Gardening With Extreme Weather

The Galveston County Master Gardeners will host a Zoom presentation, Tuesday, March 12, 2024 with Dr. Mike Arnold, Director of the Gardens and Professor at Texas A&M University Department of Horticulture Sciences. He has been with A&M since 2012. He has a B.S. in Business Administration and Agriculture and an M.S. in Landscape Horticulture from Ohio State University, with a Ph.D. in Horticulture Sciences from North Carolina State University.

In addition to his teaching and research commitments, he was appointed Director of the Leach Teaching Gardens. He is a past president and chairman of the American Society of Horticultural Sciences and former chair of the Texas Superstar® committee.

His presentation will discuss gardening with extreme weather and some comments about the Leach Teaching Gardens and continued growth.



## April - A Master Gardener Goes to Mars

Join the Galveston County Master Gardeners for the Tuesday, April 9, 2024 monthly meeting when we welcome our own member Dr. Kay Sandor. She is a Professor Emeritus from UTMB School of Nursing and a retired psychotherapist from her private practice. She is currently a Certified Labyrinth Facilitator, a Board Advanced Holistic Nurse, a scholar in the Global Academy of Holistic Nurses and a Certified Texas Master Gardener. She loves gardening, sailing, and watercolor painting. Come hear her talk about her trip to Mars!



March	April	May	June	July
Dr. Mike Arnold Impacts of Severe Weather	Dr. Kay Sandor Mars Desert Research Station Featuring Medicinal Herbs	GCMG Backyard Meeting Camille Goodwin	GCMG Recognition and Graduation - Mikey Isbell	Fish Fry Plant Swap
August	September	October	November	December
TBA	GCMG Backyard Meeting Trish McDaniel	GCMG Backyard Meeting Lynn Shook	Annual Meeting	Holiday Party - Mikey Isbell