OBSERVATIONS FROM NATURE

APRIL, 2012
PHOTOGRAPHS BY
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We have tried to use native plants around our house as much as possible. The one pictured here is found in extreme Southwest Georgia, Northwestern Florida, and the Southern parts of Alabama, Mississippi, and Louisiana. It is Florida Anise (*Ilicium floridanum*), and the leaves do smell like anise (or licorice) if they are crushed. The flowers, however, do not smell very good, and other common names for the plant are "stinkbush", "dead fish tree", or "wet dog tree". The flowers pictured here are about 1.5 inches across, and the plant itself grows into a shrub or small tree up to about 10 feet in height.

Although Florida Anise is a native plant, it is widely available commercially. A white-flowered variety has also been developed. A closely related species, (*Illicium verum*) is found in Northeast Vietnam and Southwest China. This plant is the source of the spice called "star anise" which is often used in Chinese, Indian and other Asian cooking. In the West, *I. verum* is increasingly being used as a substitute for genuine anise in cooking, because it is less expensive. Genuine anise comes from a plant in the carrot family (*Apiaceae*) that is not closely related to the *Illicium species*.

Yet another plant is used for licorice flavors in candies, soft drinks and other products. Licorice comes from the root of *Glycyrrhiza glabra*, a member of the Pea family (Fabaceae). It is native to Southern Europe and parts of Asia.

In any case, one should never eat the plant pictured here, Florida Anise (*I. floridanum*), because it is very toxic!



The Red-shouldered Hawk nest that is in a tree next to our house (see the March notes) has been quiet while the parents incubate the eggs. In the top photograph tail feathers can be seen protruding over the edge of the nest. In the photograph below, the bird has raised its head to take a look, probably at me on the ground taking the picture. The nest is so high that I have no way of getting a picture down into the nest.

I am really surprised that these hawks chose to build and use a nest so close to our house. There is quite a bit of noise; the garage doors go up and down, we use a gas blower to clean things off the driveway, I used a power washer to clean the deck, and we frequently walk around and talk outside.





Dogwood Trees (*Cornus florida*) are emblematic of April. It is not certain how these trees came to be called Dogwood. The name was present in English writings in the late 16th century. It may have derived from "dagwood", or the wood used to make daggers, skewers and arrows. The wood is hard and dense, and is used now to make wooden rake teeth, shuttles for weaving, and tool handles. Another origin story says that extracts were used to treat mange in dogs, hence the name "dogwood".

It is interesting that a Dogwood "flower" is really an aggregation or head of several tiny flowers. I have magnified the center flowers in the photograph below and placed circles around two of the flowers. The central green stigma and the four anthers can be seen protruding out from the four recurved petals. The aggregation of tiny flowers in the middle is surrounded by four large, white petal-like structures. These are not petals, but are modified leaves called bracts.

According to a legend in Christian mythology, the Dogwood was originally a tall, strong tree growing in the Middle East. The Romans selected Dogwood as the material to construct the cross used to crucify Jesus. Jesus felt pity for the tree, which was greatly distressed at being used for such a nefarious purpose. He transformed the dogwood into a small tree that could never again be used to make a cross. Close examination of a dogwood bloom reveals two longer white bracts and two shorter ones These form a cross shape, suggesting the dogwood's role in the crucifixion. Continuing with the idea...the



cluster of flowers in the center of the bloom, represents the "crown of thorns. Also the outer edge of the four white bracts are marked with scars that show the rust from the crucifixion nails and the blood from Jesus.

Migratory birds continue to drop in for short visits on their way north. This is a male Rose-breasted Grosbeak (*Pheucticus ludovicianus*) peering around the corner of one of our bird feeders. The female is rather drab in comparison. It is striped like a large sparrow or finch. The "About Birds" page from Cornell http://www.allaboutbirds.org/guide/rose-breasted_grosbeak/id states that this Grosbeak's song is "like that of the robin, only as sung by an opera singer, being mellower and more sweetly melodic".





This little beauty is a Deptford Pink (*Dianthus armeria*). Each flower is only about 1/2 inch across. As the common name suggests, it is in the Pink or Carnation family (Caryophyllaceae). Like so many plants found along roadsides or in waste places, it is an introduction, this time from Europe. Deptford refers to an area in England, where this plant was common. *Dianthus* is said to be derived from "Diosanthos", which means "flower of Zeus" (Dios is the genitive* form of Zeus, and anthos means flower.

*Genitive case denotes possession. In English we generally just use an 's to indicate possession, as in Robert's coat. In personal pronouns, however, special genitive forms occur. For example, we do not say "I's dog"; we say "my dog". My is a special genitive form. Dios is a special genitive form of Zeus, thus Dios anthos means Zeus's flower.





Last December, we featured Chinaberry Trees (*Melia azedarach*), and talked about the interesting fruits that they produce in great quantities. This month the Chinaberries are in flower, and it is easy to see why they were planted as an ornamental. At a distance, the trees are masses of lavender and white. Close up, the flower buds are a deep lavender, and the flowers have white petals tipped with a light shade of lavender. The flowers have a long floral tube with the anthers tucked inside. The flowers are also very fragrant. Because of these floral characteristics, Chinaberry Trees are sometimes called Persian Lilacs.



Swallowtails are among the largest, most colorful, and best-known of our native butterflies. The Tiger Swallowtail (*Papilio glaucus*) is perhaps the most familiar of them all. The one pictured at right is feeding on a Native Azeaea (*Rhododendron austrinum*). It has a long proboscis which it has inserted down the floral tube of the flower to obtain some nectar.





Tiger Swallowtails occur in two different color morphs. The males are vellow and black, the pattern exhibited by the photograph above. Females are dimorphic; they may be vellow and black or they may be mostly black. The dark morph females are so different looking that they might be taken for a different species. The photograph on the left shows one of these dark morph females sitting perched in the field at the top of our driveway. It is said that these black females are mimicking the Pipevine Swallowtail (Battus philenor), which is similar in coloration. Pipevine Swallowtail larvae feed on species of Aristolochia, or pipevines. Compounds in these plants make the larvae and the adults very toxic and distasteful to predators such as birds. The Tiger Swallowtail is not toxic, but predators mistake them for Pipevine Swallowtails and leave them alone.



The flower to the left is Eastern Sweetshrub (*Calycanthus floridus*), a plant native to the Eastern U.S. The flowers of the native form are a deep purple. The yellow flowered form shown here is a horticultural variety named "Athens", and it was selected at the University of Georgia.

Sweetshrub flowers are very fragrant, and smell like different things to different people. Some say the odor is like pineapples, bananas, strawberries or bubble gum. To me, they smell like apples. The twigs and leaves are also fragrant. Thus another name for this plant is Carolina Allspice. An oil derived from the flowers is used in perfumes.

Sweetshrub is an easy plant to grow; I have not seen any insects eating it, and it does not appear to be susceptible to disease.



Atamasco Lillies (Zephyranthes atamasca) are perennials that grow from a bulb about 1 inch in diameter. They are seen along roadsides and in moist forests throughout the Southeastern U.S. Atamasco Lillies are in the Amaryllis family, and there are about 70 closely related species in the New World. The group is called "Zephyr Lillies", and the genus name comes from the Greek for "West Wind". This is a reference to the fact that they originated in the Western Hemisphere and were introduced to Europe. Atamasco is derived from a Native American word meaning "stained red", apparently referring to the pink shade that the petals obtain as the flower ages. The specimen pictured was transplanted to our woods, and has flowered each Spring for several years.

All parts of this plant are poisonous.



I wrote about the Pawpaw plant in the November issue of these Notes. This month they have started to bloom, and the flowers are quite interesting. We have two species of Pawpaw growing in our woods, Common Pawpaw (*Asimina triloba*) and the Dwarf Pawpaw (*Asimina pygmea*). The Common Pawpaw I have was transplanted from my brother and sister-in-law's woods in Southern Indiana. Its flowers (above) are much larger and more showy than those of the Dwarf Pawpaw (below). Flowers of both species grow directly out of the stem of the parent plant. Pawpaw flowers have a rotten odor and are normally pollinated by carrion beetles or blowflies. The fruit is a multi-seeded berry shaped somewhat like a banana or small lemon. Pollination must rarely be successful, because I have never seen any fruit on my Pawpaws...maybe this year...









I noticed that some of the terminal leaflets of our Hickory Tree leaves were rolled up into tubes (arrow above left, and above right). When I unrolled one of these leaflets, I found a tiny caterpillar inside (left). It was impolite enough to regurgitate on my fingertip.

This is probably a Shagbark Hickory Leaf-roller (*Pseudexentera cressoniana*) or a Hickory Leaf-roller (*Argyrotaenia juglandana*). Both of these are moths in the Tortricid family. The larvae roll up the leaflet and glue it into a tube with silk. Then they can eat most of the leaf with some degree of protection from predators.



Many roadsides and untended fields are very showy this month, because of Cornflower or Batchelor's Buttons (*Centaurea cyanus*). It is in the Sunflower family and is native to Europe. In England, agricultural crops such as wheat, barley, rye or oats are lumped under the name "corn". (What we call "corn" is *Zea mays*, and is referred to as "maize" in England and many other parts of the world.) Since this plant grew as a weed in "corn" fields, it was called "cornflower".

In folklore, young men would wear Cornflowers if they were in love, hence the name "Bachelor's Buttons". If the flower faded quickly, the young man's love was unrequited.

To the right is one of the Azaleas blooming in front of our house. It changes color as the flower matures.

The difference between what gardeners call Azaleas and what they call Rhododendrons is somewhat arbitrary. Azaleas are usually deciduous and somewhat smaller than Rhododendrons, which are usually evergreen. However, the flowers of both are very similar and they are all species of the genus *Rhododendron*.





At a stop near our house, we noticed grasshoppers impaled on a barbed-wire fence. This is the work of the Loggerhead Shrike (*Lanius ludovicianus*), also known as the Butcherbird. The generic name, *Lanius*, is from the Latin for "butcher". These birds are about the size of a Mockingbird, but they have a sharp, beak with a tiny hook on the end. They perch on an open site and keep a lookout for victims. They are known to kill many types of insects, lizards, frogs, mice and other birds. Some of the prey, like these grasshoppers, is impaled on a thorn or a barbed-wire fence. The bird may then return at a later time to eat the creatures stored in this way. The Shrike pictured below was perched on the electric wires just above the impaled grasshoppers.

The Shrike family has more than 50 species world-wide, but only two species, the Loggerhead and the Northern Shrike (*Lanius excubitor*). The latter is not found in our area.

The victim pictured above is, I think, an American Grasshopper (*Schistocerca americana*). On the same fence, we found another grasshopper (right) that had been partially eaten. This appears to be a different species, perhaps a Southern Red-legged Grasshopper (*Melanoplus propinquus*). However too many parts are missing to be sure of the identification.



An American Strawberry Bush (*Euyonomous americanus*) is blooming just next to our back deck. Other common names for this plant are "Hearts-a-burstin" and "Love's Heart Lies Bleeding" The pale yellow-green flowers appear to be coming directly out of the middle of the leaf, but if one looks closely, the thin flower stalk can be seen connecting the flower to the main stem. The colorful fruits (below) give the plant its common name. These fruits mature in the Fall; the ones pictured here were photographed last October in Tennessee.

Strawberry Bush is a native plant in the Bittersweet Family. It is a favorite food of the White-tailed Deer, and we will be lucky if any of our flowers make it to the fruiting stage.

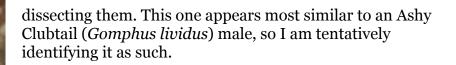


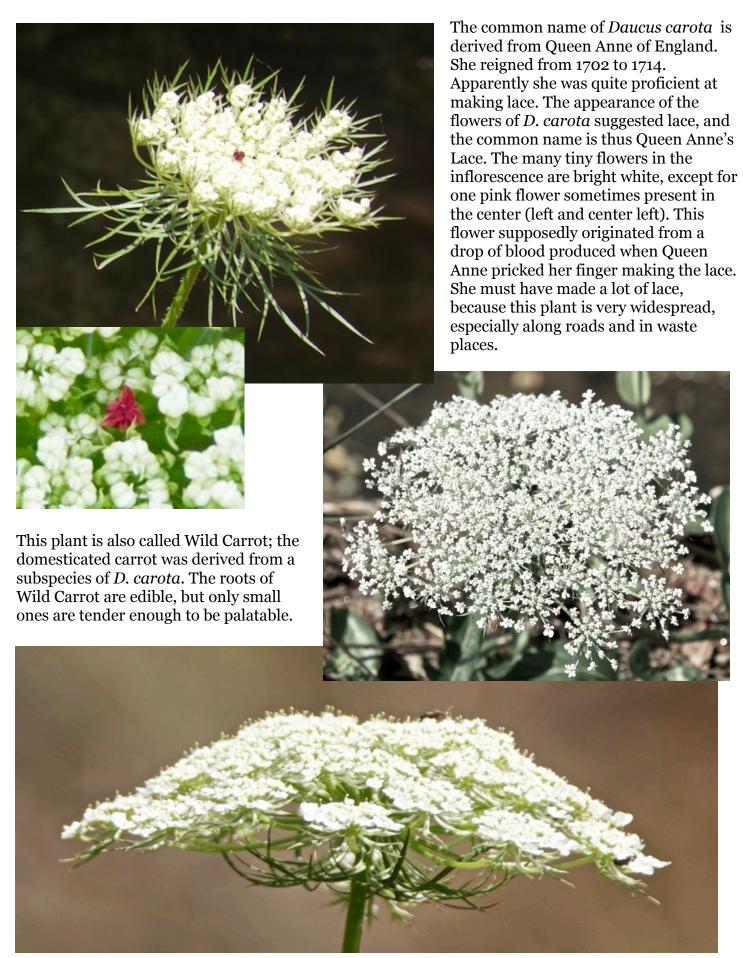


Two April dragonflies are pictured on this page. The one to the left is, I think, a female Spangled Skimmer (*Libululla cyanea*). It has white stigmas (the marks on the leading edge of the wings near the tip). The female Yellow-sided Skimmer (*L. flavida*) is very similar, but has yellow stigmas.

It is harder to be sure of the species of the dragonfly pictured below. One important clue to identifying dragonflies is whether the eyes contact one another on top of the head. The blue eyes of this one clearly do not meet. Only two families of Georgia

dragonflies have this trait: the Petaltails and the Clubtails. Only one Petaltail is found in Georgia, and its markings are clearly different than the one pictured here. Also, this one has a slightly swollen, or clubbed tail. Some of the Clubtails are hard to distinguish without killing and







This interesting creature is an **American Snout Butterfly** (Libytheania carinenta). The mouth parts of this creature are greatly enlarged and elongated. Most authorities believe that the Snout Butterfly is a dead-leaf mimic. It gains protection from predators by pretending to be a dead leaf. To further this illusion Snout Butterflies often hang upside down under a branch. The dull brown color of the underwings would further this illusion, and the snout would resemble the leaf stalk (petiole) enough to fool birds or other creatures. The animal in the picture below left has perched on the underside of a green stem, so the camouflage is not so effective.

The Snout Butterfly is famous for the mass migrations that occur at intervals in the Southwest. Sometimes flocks of them are numerous enough to darken the sky, and estimates of their numbers range to hundreds of millions.

Snouts are small butterflies; their wingspan is only 1.5 to 2 inches. The larvae eat various species of Hackberry (*Celtis sp.*). The adults collect nectar from many types of flowers.



Thistle is a common name for several plant species with sharp prickles on their leaves and stems. One group of "thistles" are members of the Sunflower family (Asteraceae), and have many flowers in large heads. The thistle pictured here is Carduus nutans, the Nodding Thistle. The flower head pictured at left is just beginning to open, and the spinetipped bracts form a nice geometric pattern. The head below has matured, and it contains a multitude of small flowers with purple petals. A bee has thrust its head into the flower mass in search of nectar.

Thistle is the symbol of Scotland. According to legend, an army of Scots were sleeping in camp. Norsemen took off their boots to try to sneak up on the Scots. But some of them stepped on thistle fruits, yelled out, and alerted the Scots, who turned out quickly and won a great victory.

A small black seed that bird-lovers put in feeders is sometimes called "thistle seed", but it comes from *Guizotia abyssinica*, an African crop plant grown for the oil in the seeds. Common names of this plant include "niger", "inga seed" or "blackseed". To eliminate the possibility of weed introduction, all this "niger" seed is sterilized before being distributed in the U.S.

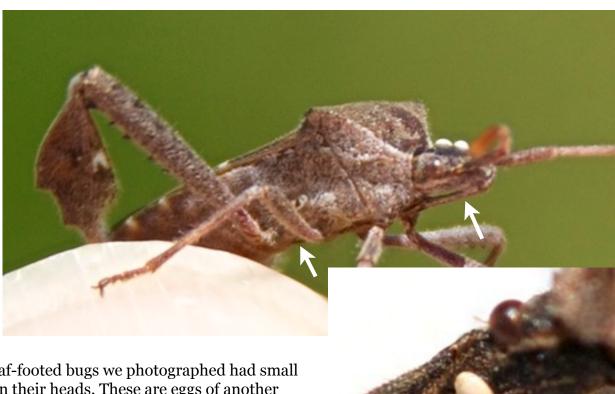
Goldfinches and other small birds also enjoy the seeds of true thistles, such as the one pictured on this page. They frequently make their nest out of down from the mature flowers.





Thistles are great places to collect insects. Many types can be found, from pollinators to predators. The day we photographed the thistles on the previous page, there were many Leaf-footed bugs on the flowers. The one in the photograph to the left is *Leptoglossus phyllopus*, the Florida Leaf-footed Bug. The flat flap on its hind legs is leaf-shaped and gives the common name of Leaf-footed Bug.

True Bugs, like this one, are in the Order Hemiptera, and their mouth parts are modified into a hollow tube. They feed by inserting this tube into a plant (or animal) to sucking out liquid food. In the middle photograph, the long mouth tube can be seen folded from the head back under the body (arrows).



Many of the leaf-footed bugs we photographed had small white bodies on their heads. These are eggs of another insect, probably a Tachniid Fly. After the egg hatches the larval will eat its way into the bug and consume it from the inside. There are about 1300 species of these flies in North America, and all are thought to be internal parasites during their larval stage.





Three flower heads of Cat's Ear. Note the bright yellow ray flowers and the absence of disk flowers.

A mature head of Cat's Ear. Each seed is equipped with a bit of down to aid its dispersal by the wind.



This moth, which came to the window at night, is a member of the moth family Geometridae. Geometer means "earth-measurer", and many of these species' larval stages are called "inchworms" or "measuring worms" because of their method of crawling. They "loop" along by attaching with their front legs, drawing forward their rear part, grabbing hold with the prolegs on the rear part, and then extending their front part. A video showing the movement is at: http://www.youtube.com/watch?v=rAZqZdo9HLA The moth pictured here is a species of the genus <code>Xanthophyte</code>, and it is either a Crocus Geometer (<code>X. sospeta</code>) or a False Crocus Geometer (<code>X. urticaria</code>). It was about 2.5 inches in wingspan. I have been unable to find out why "crocus" is in the name. Crocus is not listed as a food plant anywhere.