OBSERVATIONS FROM NATURE

Spring 2013 2, 2013 Photographs by Joyce and Gary Kochert



Candles of Green

Longleaf Pine (*Pinus palustris*) once covered large areas of the southeastern U.S. It is wellnamed, because its leaves (needles) are up to 18 inches long. This species was so valuable as timber that almost all the virgin stands are gone. The one pictured here is beginning to show its spring growth. This stage is aptly called the "candle" stage.



Nerve-wing

A Common Green Lacewing visited our living room window. It is a member of the insect order Neuroptera, derived from the Greek for "Nerve Wing". There are many similar species in this group, and I am not sure which one this is. I would guess it is a species of *Chrysopa* or *Chrysoperla*. One common name for these creatures is "Stinkflies", because they give off a vile odor when handled. Lacewings are related to Antlions (family Myrmeleontidae), and their larvae are ferocious predators which eat aphids, caterpillars and about any other insect of suitable size. Lacewing eggs are sometimes sold for introduction into gardens as biological control agents.

State Flower

Magnolia grandiflora is the state flower of Mississippi and of Louisiana. Its big white flowers open to reveal a complex set of stamens and pistils. In the photograph below, the female portion of the flower can be seen at the top with the purple stigmas sticking out. The stamens are in whorls at the bottom of the flower. This central structure will develop into a cone-like structure which will contain bright red seeds in the fall.



A Stop at the Millpond

Clark's Millpond, just northwest of Louisville, GA, always yields some interesting things. A Brown Watersnake (*Nerodia taxispilota*) was swimming across the pool below the dam. This one was about five feet long. Brown Watersnakes mostly eat fish (especially catfish) and are seldom found far from the water. They are not poisonous, but will bite if handled.



A Spotted Sandpiper (Actitis *macularius*) was foraging around the edges of the same pool. It has an orange bill with a black tip. Females of this migratory species arrive on the breeding ground before the males and defend territories. They may then mate with more than one male, leaving clutches of eggs to be incubated and reared solely by the respective male. This mating pattern is called "polyandry". Does this ever occur in humans?



The same pool holding the Brown Watersnake and the Spotted Sandpiper had a lot of fish nests along the edge. These fish (probably Bluegills, *Lepomis maximum*) clean out a patch of the bottom to lay their eggs. Then they guard the nest from other fish that would eat the eggs. One of the parents can be seen in the nest shown in the bottom photograph.



American Bells,

Blue Jasmine, Swamp Leather Flower, and Marsh Clematis are all common names for *Clematis crispa*, a vine with light-blue, bell-shaped flowers. It is native to the southeastern U.S., and grows in wet places. There are about 300 species in the genus *Clematis*, and they are found throughout



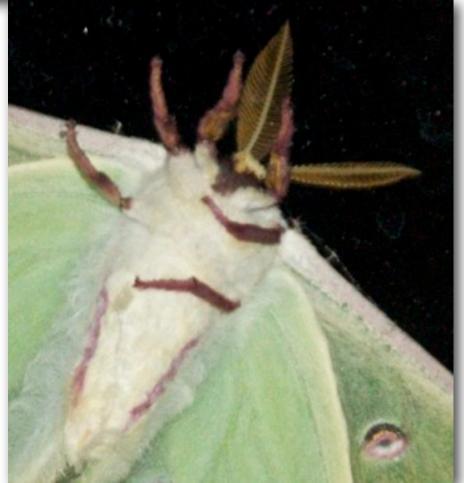
temperate regions of the Northern Hemisphere. Nearly all are woody vines. Some of the cultivars are very popular here in the Southeast for planting around mailboxes or espaliered on walls. The cultivated ones are mostly hybrids of Japanese and Chinese species.



Out for the Evening

A Luna Moth (Actias luna) visited our living room window. From outside (above) the moth shows its striking colors and long "swallow" tails. This one is apparently a male, because it has very long and bushy antennae. Females emit a compound (a pheromone) into the air and the males use their specialized antennae to follow the pheromone to the female. The purple leading edges on the wings indicate this is the first brood of the Spring. The second brood will have more yellowish leading edges. The eyespots on the wings are shaped somewhat like moons, thus the specific and common name "luna" which means moon.

From the underside (below), the moth reveals a downy, white body.





Spawning Frenzy

This school of Saffron Shiners (*Notropis rubricroceus*) was spawning in a very small stream in Northeast Georgia. The bottom was mostly solid rock, but contained occasional small pockets of gravel, and the fish were spawning there. These shiners form spawning aggregations with other species of minnows, often some sort of chub minnow. If you look carefully, you can see the other drab-colored minnow species below the Saffron Shiners.

The picture below shows the white tubercles on the Saffron Shiner heads. Many species of minnow develop these during spawning season. These males will lose their bright orange color when the spawning season is over.





Rescued

We picked up this False Map Turtle (*Graptemys pseudogeographica*), also called the "Sawback Turtle", crossing a road near Reelfoot Lake in Tennessee. The upper shell (carapace) of this species has a vertebral keel and a serrate rear margin. The large black blotches are also characteristic. This one was too shy to emerge from its shell, but the nice yellow markings can be seen on it legs. This is an adult; younger specimens have an elaborate set of yellow markings on the carapace. These markings resemble a map, hence the common name.





Get your Ducks in a Row

A family of immature Wood Ducks (*Aix sponsa*) were taking a break on this log which was grounded in a shallow beaver pond.



Pond Life

On a trip to a commercial garden a few miles northwest of our house we saw lots of dragonflies and damselflies around the water lily gardens. Many of these were perched on the Pickerelweed (*Pontederia cordata*) plants that had been planted around the margins of the ponds. The photograph on the left shows the flower and the tip of a leaf of Pickerelweed. Once the flowers have been pollinated and begins to form fruit, the stem bends to submerge the fruits and the subsequent seeds under the water.



Two Damsels

We used to call damselflies "Snake Doctors" when I was growing up in Indiana. Damselflies are in the same family as dragonflies, but usually can be distinguished by their more slender bodies and their habit of holding their wings together over their backs instead of spread out to each side, as do the dragonflies. They are often brightly colored also, witness the Ebony Jewelwing (Calopteryx maculata) above and the Variable Dancer (Argia fumipennis) to the right.





Three Poses

A Blue Dasher (*Pachydiplax longipennis*) dragonfly is shown in the two photographs to the left perched in the usual position. They are identified as Blue Dashers, because no other species in our area has this pattern of amber spots in the outer wings and at the base of the wings. Look carefully and you can see also a black line in the amber spot at the base of the hind wings in the top picture.

The Blue Dasher pictured left below is perched on a weed stalk in our field. It has the amber spots at the base of the wings, but lacks those further out on the wing.

The Blue Dasher at the right is posing in the "obelisk" position. Many species of dragonfly will occasionally assume this pose. They generally face away from the sun when in this position, and it is assumed they are trying to prevent overheating.





Wings give it away.

The Widow Skimmer (*Libellula luctuosa*) has a distinctive wing pattern: all four wings are black on the inner half, but only the males have white stripes distal to the black areas. The male pictured above was perched in the sun at an angle where the black wing areas reflected an iridescent brown. A female Widow Skimmer is shown in the photograph below.





Monarch's Home

Milkweed has long had many applications in folk medicine, so Linnaeus (Carl von



Linné) put the milkweeds in a genus he named Asclepias, after the Greek god of healing. There are more than 100 species in North America, and they are widely distributed. I think this one is a variety of Asclepias syriaca, the Common Milkweed. The species name "syriaca" comes from a mistake by a scientist. He thought this species, which he saw growing in North America was the same as one he had seen in Syria. However, it turned out not to be the same species, but by then the species name was established.

The photograph at the left shows a drop of the milky latex that oozes out when the plant is wounded.

Monarch Butterflies lay their eggs exclusively on species of *Asclepias*. The larvae and the adults are distasteful to predators because of chemicals the larvae acquire from eating their milkweed host.