OBSERVATIONS FROM NATURE

SUMMER, 2012-PART 2
PHOTOGRAPHS BY
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Many creatures come to the birdbath on our deck for a drink or a bath. We have seen many species of birds, raccoons, opossums, various insects, squirrels, and chipmunks. This is the first lizard we have seen, however. It is a Carolina Anole (*Anolis carolinensis*). It has lost part of its tail and is apparently regenerating the end. Also, it is very thin; its ribs can be plainly seen.

We have had quite a bit of rain this summer so this Fall should be very good for mushrooms. These bright red-capped specimens from the woods outside our living room are American Caesar's Mushrooms (*Amanita caesaria*). This species is reported to be very good to eat, and the European form was supposedly a favorite of Roman Emperors. However, only experts should eat any mushrooms collected in the wild. Some other species of the genus *Amanita* are very toxic and have caused several deaths. So leave them alone! They are quite beautiful though, aren't they?



Notice how these mushrooms emerge from a white, sack-like structure. This is called a vulva, and is one of the features used to identify a mushroom as an Amanita.



Here are two Large Milkweed Bugs (*Oncopeltus fasciatus*) mating on a Milkweed (*Asclepias* tuberosa) pod. They feed almost exclusively on milkweed. Being true bugs (Hemiptera), they feed by inserting their proboscis into the plant to suck out the juices.

Brightly-colored, conspicuous insects, such as this species, are usually toxic. The bright colors serve to warn away predators, such as birds. These bugs become toxic because of toxins (cardiac glycosides) in the sap of milkweeds. As the bugs feed, the toxin accumulates and renders them poisonous.

The Green Milkweed (Asclepias viridiflora) produces several clusters of flowers along its sprawling stem. This one is growing in the field along our driveway.



Late Summer and Early Fall are great times to observe spiders. A beautiful Garden Spider (*Argiope aurantia*) has spun a web outside our kitchen window. These are among the largest common spiders, with females more than one inch across. The web may be two feet or more in diameter. Each night the female consumes the circular interior part of the web and rebuilds it the next day. It is not entirely clear why this is done.

The photograph to the right shows a colony of Tent Caterpillars (*Malacosoma sp.*) in a pecan tree. During the day they stay in the web, which apparently affords some protection from predators. At night, they march out in a group to feed on adjacent vegetation.



The Red-shouldered Hawk (*Buteo lineatus*) fledglings matured and left the nest for good at the beginning of the summer. The parents were quite able; all three young were raised to maturity.

As I mentioned before, the young hawks seemed to be fed mostly frogs, lizards and snakes. The photograph above shows a parent returning with a lizard in its mouth. The outline of the lizard's back legs and tail can just be seen dangling from the parent's beak. On occasion, however, the parents returned with larger game. In such cases, the parent would carefully rip the prey into smaller pieces and feed these to the young. In the lower photograph the parent (on the left) is passing a piece of meat to a large fledgling on the right. I did not see the parent return, so I am not sure what the parent had captured.



Keeping the nest clean!



Sensitive Brier or Sensitive Mimosa (*Schhrankia microphylla*) is a small creeping plant. It produces a series of globular flower clusters at the end of the stems. The flowers resembles those of the Common Mimosa, but the plant exhibits one very interesting property. If the leaves are touched, water quickly flows out of them, and they appear to wilt right before your eyes. This is a fun thing to demonstrate to children. Just be sure to avoid the numerous prickles along the stems and the rachis of the leaflet (these can be seen in the lower right photograph).



This otherworldly-looking creature is the flower head of a Plantain (*Plantago sp.*). Many flowers are clustered together in a dense head. The protruding white-tipped structures are stamens. This plant is a common weed introduced from Europe.

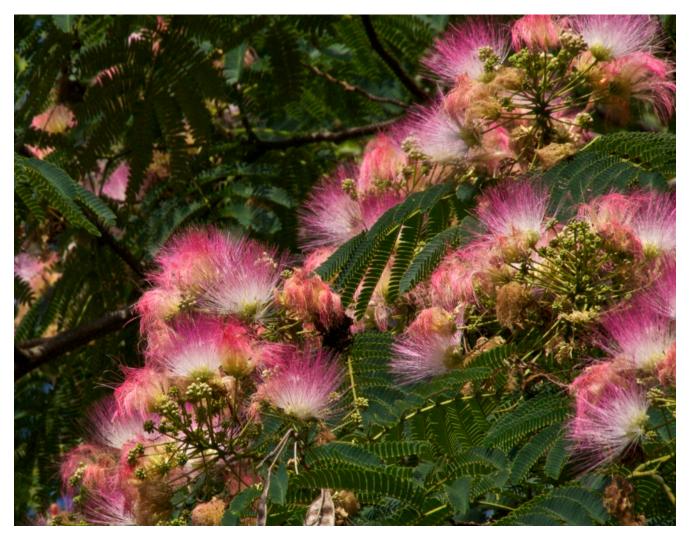
To the right is a flower cluster of Butter and Eggs (*Linaria vulgaris*) also called Toadflax. It is commonly seen along roadsides and in waste places. In common with other such plants, it is an introduction, in this case from Eurasia.

Flowers of this plant are similar to the common garden plant, Snapdragon (*Antirrhinum sp.*).





In the center is shown the interesting bark of a young River Birch Tree (*Betula nigra*). This is a common tree along waterways in the Southeast. The wood is usually too contorted and knotty to be useful as timber. Native Americans boiled the sap to make a sweetener.



Early summer graces us with the blooms of the Mimosa Tree, also called the Silk Tree (*Albizia julibrissin*). The filaments protruding from the flower are stamens. The rest of the flower is hard to discern in the center of the flower cluster. Although the tree is widespread, it is not native; it is an escape from Asia.



Elderberries (*Sambucus nigra*) are sizable shrubs that have large, flat-topped clusters of small white flowers. Later in the season, purple berries will be present. Jam and wine are often produced from the berries. If you remember the plot of the classic movie "Arsenic and Old Lace", it was poisoned Elderberry wine that Cary Grant's elderly aunts used to finish off their house guests.



By late summer the wasp (*Polistes sp.*) colony has grown quite large. I can count at lease 78 cells in the photograph above. In the Fall, all the workers will normally die. Only the Queen will overwinter to start the entire process all over again.

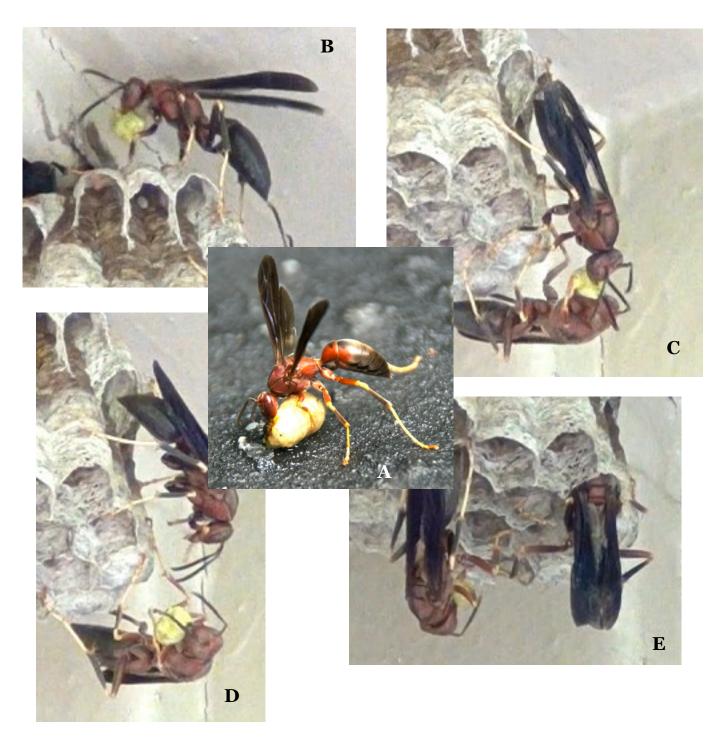






The top photograph shows a wasp that has just returned to the nest with a gray ball of chewed-up wood. This ball was passed off to the wasp on the right, and it proceeded to use the wood to make paper and extend the walls of one of the cells of the nest. The middle photograph shows the wasp searching for an appropriate cell. The bottom photograph shows the wasp lengthening the wall of a cell. It did this by backing around and around the cell, chewing the wood with its mandibles, and applying it to

the edge of the cell. Meanwhile one antenna was flitting around the inside wall of the cell and the other around the outside wall as if to measure the thickness of the newly formed cell wall. In the bottom photograph, the newly formed paper can be distinguished by its slightly darker color (arrow).



Paper wasps mostly feed their young with caterpillars. Pieces of the caterpillars are brought back to the nest and fed to the developing grubs. In this series of photographs, a wasp has captured an insect larva (A) a wasp returns to the nest with a green ball of caterpillar (B). This is passed on to a nestmate (C). The second wasp chews on the caterpillar material for a while, and ingests some of it (D). Finally, the wasp enters a cell to feed one of the grubs with regurgitated caterpillar (E). Interestingly, the adults do not themselves eat caterpillars. They live on nectar.

I heard a sickening "thud" on one of our windows. I knew at once that it was a bird strike, so I rushed outside to investigate. In the shrubs under the window was a Yellow-billed Cuckoo. This bird is often called a "Rain Crow" or a "Storm Crow". It has a very distinct call, sometimes described in field guides as "ka, ka, ka, ka, ka, kow, kowp, kowp, kowp, kowp. You should go to http:// animals.nationalgeographic.com/ animals/birding/yellow-billedcuckoo/ and listen to the call. Once you hear it, you will never forget it.

The cuckoo family has many species, and they are found worldwide. Most species are tropical. In the Southeast, we only have a chance to see the Yellow-billed Cuckoo and the closely related Black-billed cuckoo (which occurs only as a migrant). The Roadrunner (*Geococcyx californianus*) of cartoon fame is a large ground-dwelling cuckoo. The name cuckoo comes from the call of the male Common Cuckoo, a Eurasian species.

The bird outside my window was stunned, but was able to hop about before it regained its bearings and flew away. While it was hopping around I got a couple of pictures. The photograph above shows the yellow lower mandible for which it is named. The photograph to the right shows the chestnut colored wing surface and the black and white tail.







This is the fruit of the Passionflower (*Passiflora incanata*), the Maypop. I have pictured the flowers of this species a couple of times in previous notes. The fruit is a large berry with seeds inside that are surrounded by a soft pulp. Later in the season the fruit will turn yellow and become edible.

