

OBSERVATIONS FROM NATURE

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PHOTOGRAPHS BY

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January 3

This has been a good month for feeding birds such as this White-throated Sparrow (*Zonotrichia albicollis*). Audubon wrote about this species: "It is a plump bird, fattening almost to excess, whilst in Louisiana, and affords delicious eating, for which purpose many are killed with *blow-guns*. These instruments -- should you not have seen them -- are prepared by the Indians, who cut the straightest

canes, perforating them by forcing a hickory rod through the internal partitions which intersect this species of bamboo....With these blow-guns or pipes, several species of birds are killed in large quantities; and the Indians sometimes even procure squirrels by means of them".

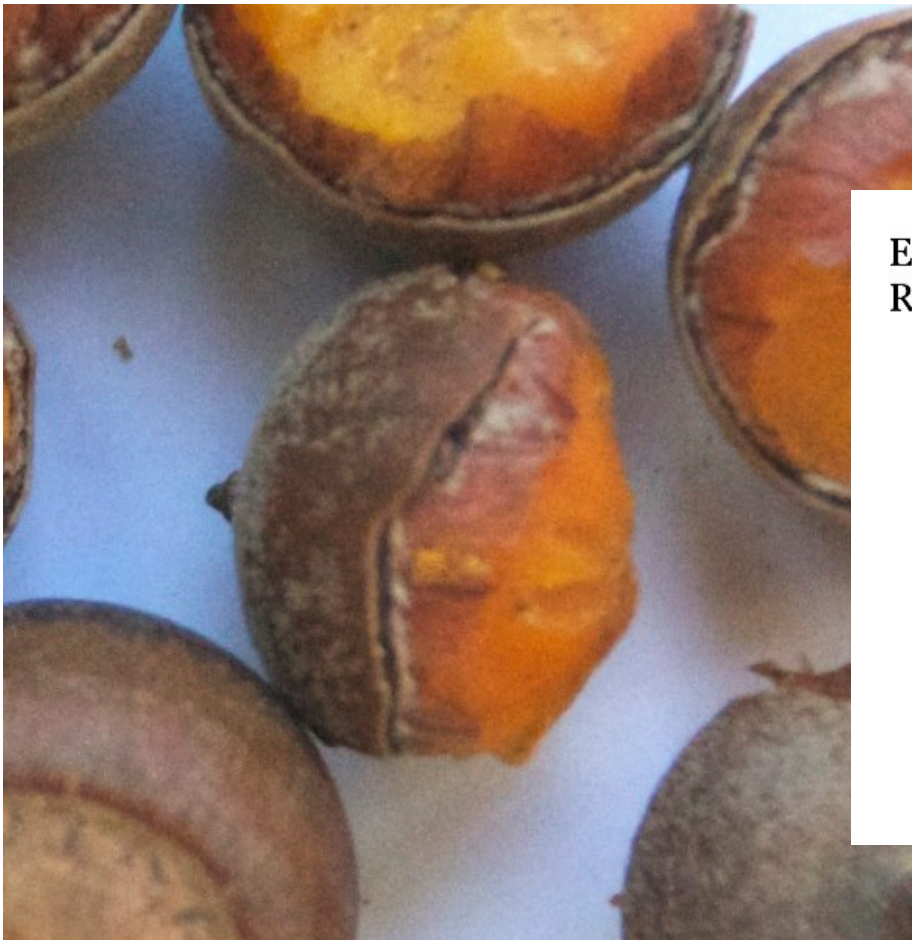
The bamboo that the Indians used to make their blow-guns was *Arundinaria gigantea*, also known as Giant Cane. It is the only bamboo native to the U.S., and is found in the Eastern United States as far north as New York and as far west as Texas.



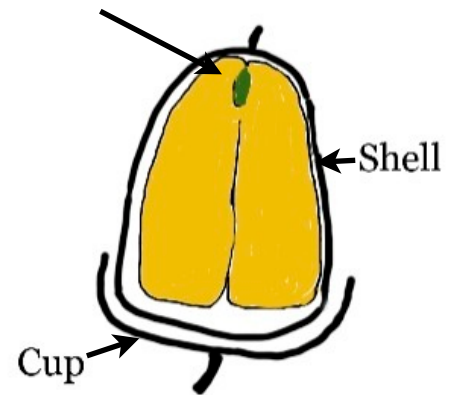
January 6

I picked up these acorns under a Water Oak (*Quercus niger*). Many of them had been partially eaten, but in a very specific way. The basal end of the acorn (the end where the cap had been attached) was eaten away, but the opposite end was discarded. I assume that this is the work of squirrels, although I did not actually see them eating the acorns.

The reason that only about half of each acorn was eaten is probably due to tannin levels. As anyone who has ever tasted an acorn knows, most kinds are very bitter. This bitterness comes from the tannins in the acorn. These chemicals presumably evolved in oaks to protect their acorns from being eaten. Experiments have shown, however, that the tannins are not evenly distributed in the



Embryonic
Root and Shoot



The inside of an acorn

the basal end the least. So the squirrels are presumably eating the end of the acorn that has the fewest tannins and thus is the least bitter.

January 10

Resurrection Ferns (*Pleopeltis polypodioides*) cover the trunk of this tree. These plants are named for their ability to dry out when there is no rain, and then to “resurrect” quickly when it rains. They are classed as epiphytes, meaning they grow on other plants, in this case a tree trunk. They get no nutrients or water from the plant, unlike mistletoe, which is a parasite.

Below is a picture of three Wild Turkeys (*Meleagris gallopavo*) running for the woods after crossing the road ahead of us. When Europeans arrived in the New World, the Native Americans had very few domesticated animals. There were no horses, cows, sheep or goats. The Wild Turkey was, however, domesticated by the Aztecs and other peoples in Mesoamerica. The only other animal domesticated in North America was the dog. South America had llamas, alpacas, guinea pigs, and Muscovy ducks. Turkeys got their name in a roundabout way. The first European settlers saw the Wild Turkey and



assumed it was some sort of Guinea Fowl, which they had seen in Europe. Guinea Fowl had entered Europe through the country of Turkey, and they were also called “Turkey Cock” or “Turkey Fowl”. Europeans eventually shortened the name for the American Wild Turkey from “Turkey Fowl” to “Turkey” even though the bird has nothing to do with the country of Turkey.



January 13

A group of Black Vultures (*Coragyps atratus*) is gathered around a meal here. When one comes in for a landing, the white mid-ribs on its primary wing feathers can be seen (right). The white mid-ribs can be clearly seen on the primaries of the wing of a road-killed Black Vulture below.



To the left are the outer primary feathers of a road-killed Turkey Vulture (*Cathartes aura*) wing. They lack the bright white mid-ribs of the Black Vulture.



January 15

Here are some views of Dark-eyed Juncos (*Junco humenalis*) visiting our back deck to feed. Juncos are a type of sparrow, and they are distributed across the whole of North America. They are sometimes called Snowbirds, because they breed in the far north, and only move south during the winter. The coloration of *Junco humenalis* varies greatly in different parts of their range, and more than a dozen subspecies have been described. The outer feathers on their tale are white. They are conspicuous during flight, and they flip them out with every hop when they are on the ground. The picture below right shows the white tail feathers in “mid-hop”.





January 18

Tufted Titmice (*Baeolophus bicolor*) are very visible this time of year. They flock with chickadees, nuthatches, and woodpeckers and frequently call. They like sunflower seeds and make multiple trips to the feeder. Like chickadees, they cannot simply crack open the sunflowers seeds with their beak. They carry each seed to a perch, hold with one foot and hammer it open with blows of their beak.

The name “Titmouse” apparently comes from Icelandic “*titlingur*” which means sparrow. The mouse part of the name was apparently attached because of the birds mouse-like grey color, small size, and quick movements. So their common name really means “mouse sparrow”.

January 19

Red-bellied Woodpeckers (*Melanerpes carolinus*) come to the deck to pick up the pieces of corn kernels left behind by the squirrels. This one is a male, because the red on its head goes from its bill to the nape of its neck. The red on the head of the female is less extensive. Red-bellied



woodpeckers like to peck rapidly (drum) on something to attract a mate. They may drum on trees, metal roofs, downspouts, metal siding or transformers on electric poles.



Red-bellied Woodpecker is not a very good common name for these birds, because very little red shows on the typical individual. These pictures show that woodpeckers have two toes pointing backwards and two forwards, unlike most birds, which have three toes forward and one back. This arrangement presumably allows woodpeckers greater versatility in climbing up and down trees.



January 20

This Pileated Woodpecker (*Dryocopus pileatus*) was hopping about on the ground looking for insects. This one is an adult male, because it has a red band running from the base of its beak to its throat. Also, its red cap runs past its eyes to the base of its beak; the female's red cap usually stops above the eyes. The Pileated Woodpecker gets its name from the pileus, a type of conical, usually felt, hat worn by ancient Greeks or Romans.



January 22

Some winter annual plants are beginning to bloom. This plant is Wild Radish (*Raphanus raphanistrum*), and is beginning to bloom in masses along the edges of fields in Middle Georgia. Wild Radish is a native of Asia that has escaped in this country and is now found all over the U.S. In the Southeastern U.S., the flowers are usually yellow, but in other parts of the country the flowers are

white. It is considered to be an invasive weed, but the flowers are quite attractive. Some think it is the ancestor of cultivated radish (*R. sativus*).

The four petals in a cross-shaped pattern and yellow flowers are typical of the family *Brassicaceae*. The family exhibits a tremendous amount of variability and is very important in agriculture. One species, *Brassica oleracea*, has forms that are cultivated as Broccoli, Brussels Sprouts, Cauliflower, and Head Cabbage. Other species in the *Brassicaceae* important in agriculture are Kale, Collards, Kohlrabi, Mustard, Rutabaga, Turnips, and Collards. Rapeseed, or Canola, is also a species in this family.





January 25

Song Sparrows (*Melospiza melodia*) are heavily streaked all over. They are aptly named because they are among the most versatile of singing birds. A single male may sing as many as 20 different song types with perhaps a thousand variations. Nonetheless, their song is consistent enough to be easily recognized by humans. However, the Mockingbird (*Mimus polyglottos*), an accomplished mimic, does not appear to be able to imitate the Song Sparrow. Their song is generally described as several bright notes followed by warbles and trills.

Song Sparrows are found all over North America north of Mexico, and many subspecies have been described.





January 29

Another sparrow commonly seen around human habitations is the Chipping Sparrow (*Spizella passerina*). Their song is a trill, which they put forth in a fast form or a slow form. Chipping Sparrows are normally fairly tame, and will frequently nest in shrubbery or trees planted around houses.



January 30

To the left is some Henbit (*Lamium amplexicaule*) growing on a roadside in Middle Georgia.

To the right is a tree which has been repeatedly visited by a Yellow-bellied Sapsucker (*Sphyrapicus varius*). These medium-sized woodpeckers drill holes in trees and return to drink the sap or harvest the insects lured to the sap. Once they pick a tree, they repeatedly visit it and produce a pattern of holes such as the ones seen at the right.

Some other birds are thought to benefit from sapsucker activity. Ruby-throated Hummingbirds (*Archilochus colubris*) arrive in the far north of their range before any plants are blooming to provide nectar. They depend, at least partially, on sap that they collect from the holes that sapsuckers drill in trees.

