

# OBSERVATIONS FROM NATURE

DECEMBER 2011

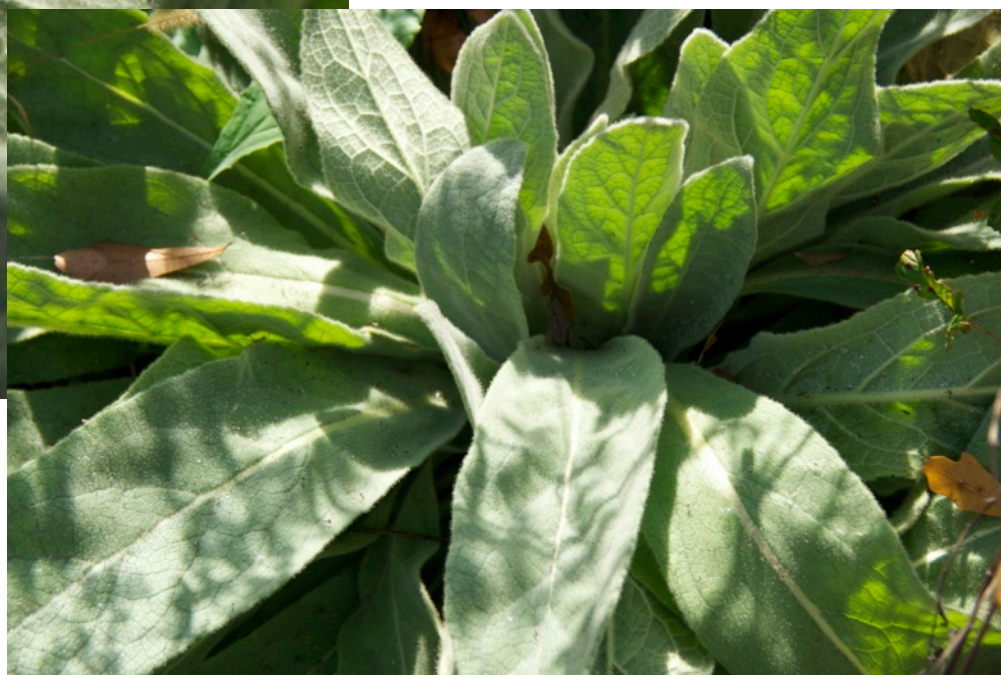
PHOTOGRAPHS BY  
JOYCE AND GARY KOCHERT



## December 2

These are leaves of Mullein (*Verbascum thapsis*), an invasive plant native to Europe, Northern Africa, and Asia. Mullein is a biennial. The first year it produces a rosette of basal leaves; the second year it produces a flowering stalk. After the seeds mature, the plant dies. These pictures show a first-year plant.

Some Mullein leaves are up to 20 inches long and 5 inches wide. Each leaf is covered with trichomes, which are hair-like structures. The hairy leaves give Mullein its common names. One is “Velvet Plant”; another is “Cowboy Toilet Paper”. I, and many of my boyhood friends in Indiana, can attest to the appropriateness of the latter name.





## December 6

To the right a Turkey Vulture (*Cathartes aura*) is soaring overhead. This view shows the long tail and the gray undersides to the primary flight feathers. The largest primary flight feathers at the ends of the wings are spread here like fingers. This gives the birds precise control of air flow over the wings and prevents vortices.



I arranged these leaves of Southern Red Oak (*Quercus falcata*) so that they would look like the tracks of some dinosaur.







## December 15

I photographed a Red-shouldered Hawk (*Buteo lineatus*) from our living room window. This hawk is the second-largest hawk commonly found in our area (the Red-tailed Hawk is a bit larger). The “red shoulders” that give this bird its common name can be seen in these photographs.

This species tends to be found near water. They are quite noisy, and their calls can often be heard in our woods. Blue Jays (*Cyanocitta cristata*) can imitate the call of the Red-shouldered Hawk quite well.

Red-shouldered Hawks hunt from a perch. When prey is spotted, they swoop down upon it. They will eat many things, including small rodents, snakes, lizards, frogs, fish, insects, and earthworms.





These two pictures show the eye of the Red-shouldered Hawk. In the picture on the left, the eye looks different because the nictitating membrane has been drawn over the eye. This membrane serves to protect and moisten the eye or to remove debris. This third eyelid, unlike the upper and lower eyelid, moves horizontally over the eye. In some diving animals, such as the beaver and the manatee, the nictitating membrane is transparent and protects the eye while the animal is underwater. It is found in many types of animals, but in only one type of primate. Humans have an upper and a lower eyelid, but no nictitating membrane. (Nictitating comes from Latin *nictare*=to blink).



## December 16

The fruits of this Persimmon tree (*Diospyros virginiana*) shown above are edible, but seem to be little used now. Our parents used to make persimmon pudding when these fruits were ripe. They are very astringent before they are ripe because of a high content of tannins. American Persimmon Trees are in the Ebony family (*Ebonaceae*), and wood from these trees is used to make the heads on wooden golf clubs, billiard cues, shuttles for weaving, and longbows.



**December 17**

Mourning Doves (*Zenaida macroura*) have been coming to eat the seed we put out on the deck. Often they arrive very early, while it is still quite dark, so we put out some seed the night before for these “early birds”. They received their common name because of the plaintive, sad-sounding, cooing call. Mourning Doves are also called “Turtle Doves”. The “Turtle” in Turtle Dove has nothing to do with hard-shelled reptiles. A dove found in Europe (*Streptopelia turtur*) produces a call that sounds like “turr-turr”. Gradually the “turr-turr” dove began to be called the “turtle dove”. When the English came to America, they saw the similar-looking Mourning Dove and called it “Turtle Dove”, despite the fact that the Mourning Dove does not make any “turr-turr” sound.



Mourning Doves are the leading game bird in the U.S. with about 20 million killed annually. To keep up with this carnage, they have to be prolific breeders; in warmer areas they raise up to six broods a year.

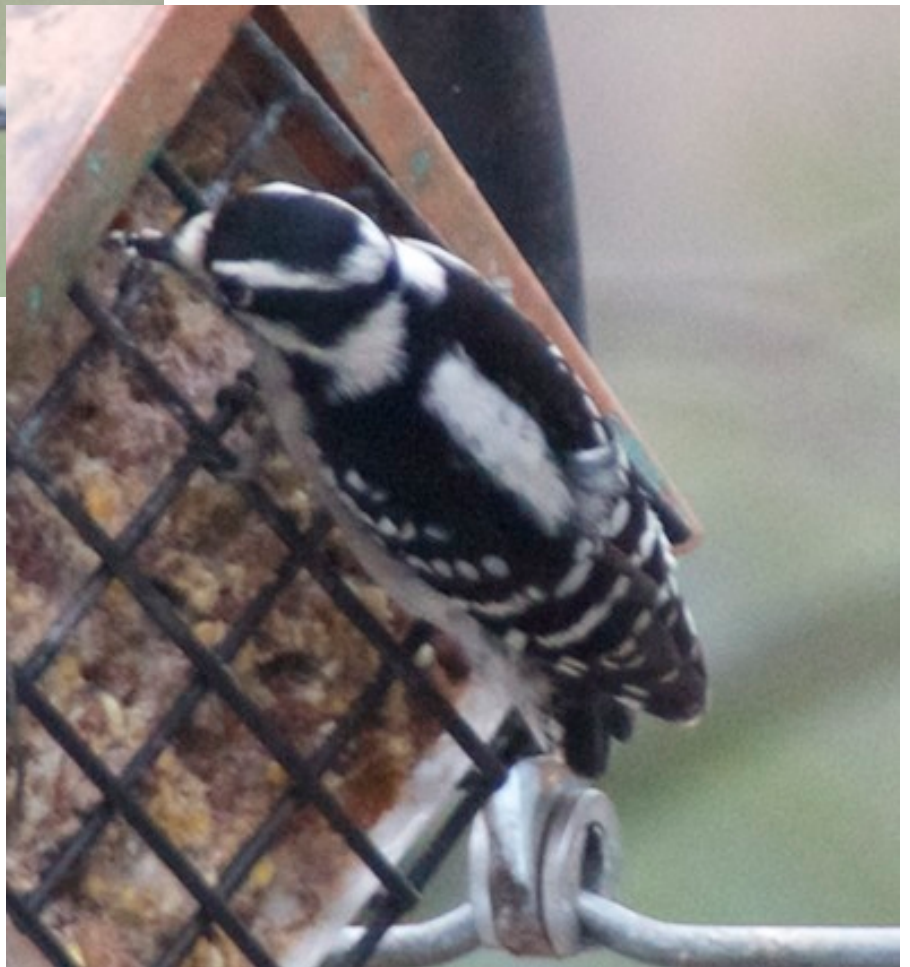


## December 20

Here are a pair of Downy Woodpeckers (*Picoides pubescens*) that visit our suet block on a regular basis. The male has the red feathers on the back of his head.

These are the smallest woodpeckers (about 6 inches long) in our area. In the Winter they may travel around in mixed flocks including Chickadees, Tufted Titmice, and Nuthatches. Interestingly, the pattern of their feathers is almost identical to the somewhat larger Hairy Woodpecker (*Picoides villosus*). I hope to get a decent picture of a Hairy Woodpecker in the future so I can put them side by side for a comparison. Suffice it to say the Hairy is larger, its bill is much larger relative to its head, and there are no spots on the lateral white tail feathers. In the picture to the left, the black spots can just me made out.

As must be clear by now, I enjoy scientific names of the various animals and plants I see.



In the case of the Downy, *Picoides* comes from the Latin word for woodpecker, which is “Picus”. In Roman mythology, Picus was a son of Saturn and a God of the forest. Circe, a daughter of Helios, the Sun God, and a Sea Nymph, Perse, fell in love with Picus. When Picus spurned Circe, she turned him, into a woodpecker. The species name *pubescens* means “having short soft hair”. It probably refers to the generally soft or downy look of the bird’s feathers (see picture above). There are more than 30 species of woodpeckers in the genus *Picoides*. They are found world-wide, with about 9 species in North America.





There are still interesting botanical items to be seen. The yellow flowers above are Camphorweed (*Heterotheca subaxillaris*), as they appeared the middle of November. This is a member of the Aster family, and you can see that there are central small disk flowers, and showy outer ray flowers.



To the left is a mature flowering head of Camphorweed in December. The ray flowers, which are sterile, have fallen off. The central disk flowers have matured to form one seed each, and every seed is equipped with a feathery parachute to carry it away with the wind.

Camphorweed is a native plant, but in recent decades it has greatly expanded its range from its original home in the Southeastern U.S. The foliage has a distinct and strong smell of camphor when it is crushed, hence the common name.



Some plants are beginning to bloom even in December. This is Henbit (*Lamium amplexicaule*). It is not a native plant in the U.S., but comes from Europe, Western Asia, or Northern Africa. It is now found throughout the U.S., but is most common in the Southeast. Later in the Winter, whole fields will be purple with this plant in bloom. It is reckoned to be an invasive problem weed, but it is undoubtedly attractive up close. These flowers are tiny, only about 1/2 inch in their longest dimension. Henbit is a member of the Mint Family (*Lamiaceae*). It has square stems, as do many other mints. The leaves are sometimes eaten as a potherb or

an addition to salads, but several sources report that eating a large amount can lead to problems.

The common name, Henbit, apparently comes from the Dutch name for the plant “hoenderbeet”, which means “chicken bite”, apparently because chickens will eat it. It is sometimes also called “dead nettle” because it looks somewhat like a stinging nettle plant, but has no stinging hairs (and thus is “dead”). At least we do not have to call it by its German name which is Stengelumfassende Taubnessel. This translates to “grasping the stem dead nettle”.







## **December 22**

This time of year the Chinaberry trees (*Melia azedarach*) stand out prominently in the winter landscape. Chinaberries are an introduced tree in the Mahogany family (*Meliaceae*). They are native to South and Southeast Asia and Australia. Some of its other common names are Persian Lilac, Bead Tree, Pride of India, and Cape Lilac. It was introduced as a fast-growing shade tree with attractive and fragrant flowers. It was planted around many rural houses in the South, and one can often see where houses used to be by looking for groves of Chinaberries. Chinaberry trees also grow along fence lines, because seeds are able to pass through the digestive tracts of birds and germinate from their droppings.

The word “azedarach” in the scientific name is from the Persian name for the tree azadirakt, which means “noble tree”.





The fruits of the Chinaberry hang in large clusters. They are fleshy with a hard stone in the center. This type of fruit (similar to a cherry fruit) is called a “drupe”. Inside the stones are 4 or 5 black seeds (bottom photograph). If the flesh is removed from the fruit, the stones inside (left photograph) resemble beads, and they have been used to make necklaces, bracelets or rosaries. They even have holes at each end to guide piercing them for stringing up. They are a natural ivory color, but can be easily dyed. The fruits are toxic to humans if a lot are eaten. Birds, such as Cedar Waxwings, Mockingbirds, Catbirds, and Robins, however, eat the fruits. If birds eat too many of the fruits, they can become intoxicated and fall into a sort of stupor. The leaves and fruits are insecticidal and have been used for preserving stored clothing.

One of the insecticidal agents in Chinaberries is azadirachtin. This complex chemical was first described from the Neem Tree (*Azadirachta indica*).

Neem is related to Chinaberry, and it is also native to South Asia. Neem Trees contain many interesting compounds that have biological activity. In India, some of this tree’s common names are: “Poor Man’s Pharmacy”, “Nature’s Drugstore”, and “Heal all”. Neem oil is widely available on line or in health food stores. Devotees describe its utility for skin diseases, rheumatism, acne and other skin problems, hair oil, insecticide and pesticide, contraceptive, a fertilizer and a

myriad of other uses. Azadirachtin is structurally similar to insect hormones that control molting. When insects eat it, they cannot molt properly and cease feeding. Azadirachtin is essentially non toxic to humans (it takes a very high dose to cause harm).



## December 26

Since it is December, it seems appropriate to include something about Mistletoe (*Phoradendron flavescens*). Where I grew up in Southern Indiana, Mistletoe was quite rare. In fact, we only knew of one place where it could be found, and we had to shoot it down with a shotgun to get some for the Christmas season. However, it is quite common in our area of Georgia.

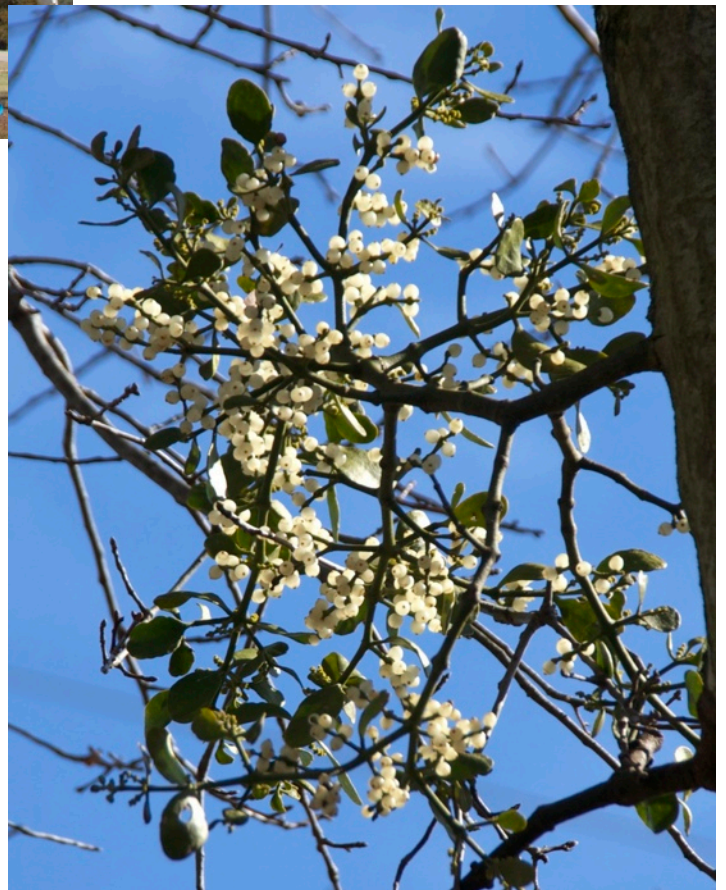
Mistletoe can infect a wide variety of trees and shrubs, but there are a diversity of races that are specific for different tree species. It seems to be most commonly found on oak trees in our area. The photograph to the left is a large oak heavily infested with Mistletoe. The photograph below shows a Mistletoe plant on the same oak. Mistletoe is an evergreen semi-parasite. It carries out photosynthesis and thus produces at least some of its own food. However, it is dependent on the host for water, minerals and perhaps some nutrients.



Heavy infestations of Mistletoe can be injurious to a tree. In times of drought, the parasite puts a severe strain on the tree and can even cause the tree to die.

The generic name of Mistletoe, "*Phoradendron*", means "robber of trees" in reference to its parasitic nature. There are more than 900 species of Mistletoe, but nearly all are found in tropical and subtropical areas. Only one species is found in the Eastern U.S.

No one seems quite sure how the custom of kissing under the Mistletoe originated, but the plant appears in many European myths and legends. The leaves and the berries are poisonous, and should be kept away from children and pets.





Mistletoe berries have fleshy outsides and several seeds inside. The soft part of the berries is very sticky. It is thought that birds are the means by which Mistletoe infects new hosts. Birds certainly eat the berries, and the seeds pass through their digestive tract. If the bird then defecates on a tree branch, the seed has a chance to germinate and to infect the tree. Seeds may also stick to the bird's feet or feathers and be transported to a new host.



The origin of the name Mistletoe is not clear, and there are several explanations in the literature. One explanation is that it comes from Old German for “dung” and “branch” referring to the plants being spread by bird droppings.







## December 27

Here is a favorite little creature. We have several of these Eastern Chipmunks (*Tamias striatus*) around the house. *Tamias* is Greek for “storer” and *striatus* means “striped”. The name “chipmunk” probably comes from the Odawa Indian word *idmoonh* which means “red squirrel”.

They are also called “striped squirrels”, “chippers”, and “timber tigers”. They are in the same family as tree squirrels (such as our Gray Squirrels and Fox Squirrels), ground squirrels, marmots (such as woodchucks), flying squirrels, and prairie dogs.

The name “chipmunk” is also appropriate, because one of their calls is a loud “chip! chip!”. They sound this quite loudly when they spot a cat, a snake or some other potential predator.

Chipmunks are hoarders, and collect food for later use. They have cheek pouches that they can fill with food for transport back to their burrow. The photograph on the left shows that cheek pouches can hold quite a few sunflower seeds.







Photo by Diamonddavej at en.wikipedia

### December 29

This is a group of American Robins at the bird bath on our back deck. The robin is another case of “mistaken identity”. The English Robin is a member of the flycatcher family. It has a red or orange breast. (We have not taken a good picture of an English Robin, so the picture to the left is from the Wikipedia Commons; it was taken by Dave Diamond.) English settlers saw a bird which had an orange breast and named it “robin”. However, the American Robin is a thrush, and is not closely related to the English Robin.

In the winter in our area, large numbers of Robins gather in flocks and travel about together. The interesting scientific name of the Robin (*Turdus migratorius*) is derived from Latin. Apparently “turdus” is the Roman word for a thrush. Around the world, there are more than 60 other species of thrush with the genus name *Turdus*.