



A Walk on the Wild Side

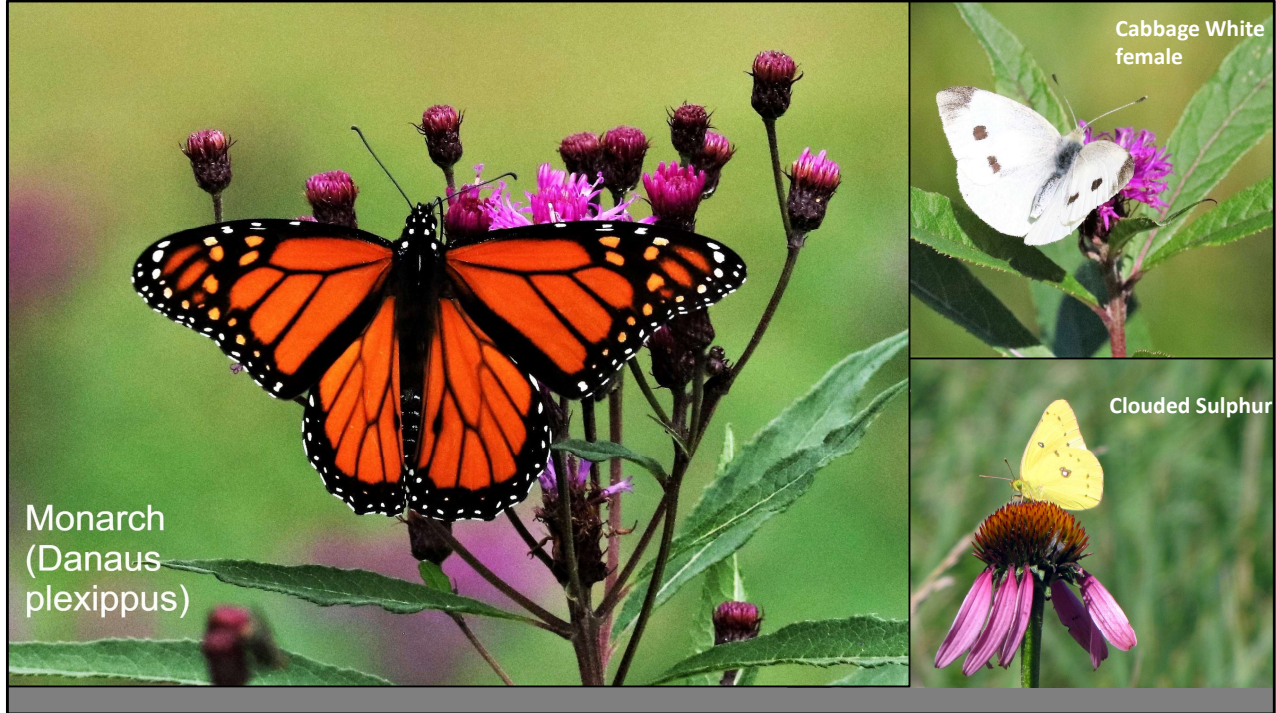
Introduction

In 1956 my family moved from Camden to Marlton NJ -- from a row home in the city to a rancher in country. My mother called it "God's country." The difference was startling. I was suddenly introduced to wild pheasant, Bobwhite Quail, and Mockingbirds in my backyard, including a woodland with insects, and wild flowers. There was a creek with turtles and fish, and ponds with frogs and dragonflies. It was a new world.



My life now consisted of roaming the woods and fields, crashing through weeds, flushing game birds, and catching frogs, bugs, and turtles. I was a true “free range kid.” And like kids everywhere, my friends and I named everything—“The birds’ nest place, the hideout tree, dairy hill, and the frog hole.” I suspected that the plants and animals had official names, but I didn’t know them.

Then, in 5th grade, everything changed. A classmate in school showed me how to collect, identify, and display butterflies. It was my introduction to the world of classical biology. My father made a butterfly net for me, and suddenly my wanderings had purpose. I was able to collect, identify, learn about, and understand at least a portion of what I saw. And it was spectacular.



I started out collecting common butterflies like the Cabbage White and Cloud Sulphur on the right. But also, I sought out the most spectacular butterflies, like the Monarch, which is considered the ‘Bald Eagle’ of butterflies, our national insect. I learned that the Monarch was an example of “warning coloration,” Its orange and black colors providing a conspicuous warning to birds that that they are toxic.

My butterfly hobby was all consuming, so much so that I never really quit, in a way I never grew up. Today, I no longer collect insects, I photograph them instead. But my 60 year interest in insects and other wildlife, has given me a front row seat to their long-term decline.

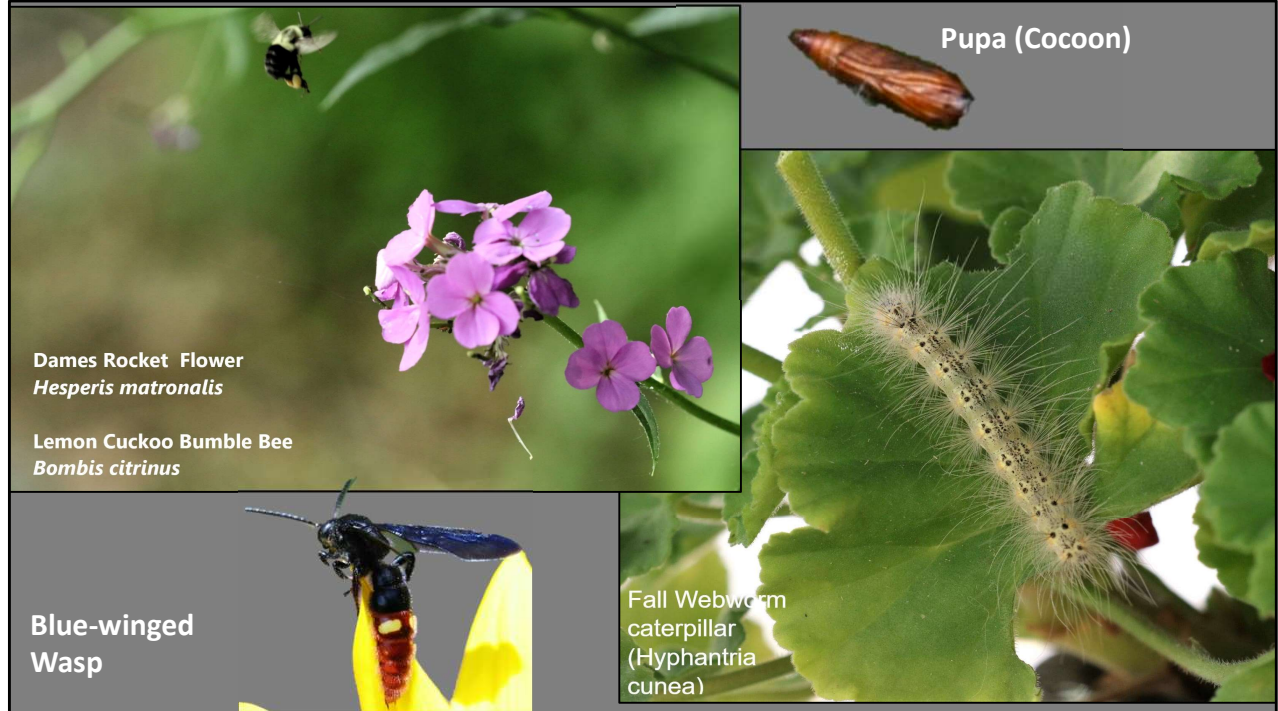
Sadly, Monarchs are in a serious and noticeable decline, and so are other flying insects. Monarchs in the U.S have declined 85% in two decades (1). And a recent study in England revealed that flying insects in that country have declined 60% in the last 17 years (2). Similar declines have occurred world-wide (3). The primary culprits thought to be responsible are deforestation,

pesticide use, artificial light pollution, and climate change.

Come join me now on short trip through the wild world of small things, a world that is rapidly changing, but still beautiful and still there for the taking.

REFERENCES

1. The Center for Biological Diversity. Saving the Monarch Butterfly Accessed 2 September 2023.
https://www.biologicaldiversity.org/species/invertebrates/monarch_butterfly/#:~:text=Monarchs%20have%20declined%2085%25%20in,to%20be%20to%20avoid%20extinction.,access
2. Scott Simon. A decline in flying bugs sounds good for humans, but it's bad for the environment, <https://www.npr.org/2022/05/14/1098942968/a-decline-in-flying-bugs-sounds-good-for-humans-but-its-bad-for-the-environment#:~:text=Summertime%20is%20fast%20approaching.,environmental%20disaster%20in%20the%20future>, May 14, 2022.
3. Wikipedia. Decline in Insect Populations.
https://en.wikipedia.org/wiki/Decline_in_insect_populations. edited 29 August 2023.



Butterfly collecting does not happen in a vacuum. I saw other insects, wildflowers, animals, and trees and soon realized that butterflies and other insects are closely associated with plants. Plants feed bugs and bugs pollinate plants. They need each other, and so I soon develop an interest in the plants as well.

Another discovery was that insects undergo metamorphosis, spending part of their life as eggs, part as larva (caterpillars), part as pupa (cocoons), and finally part as adults. Metamorphosis allows young and old to avoid competing with each other for food and space. There are many variations on metamorphosis, some social and some not. The Blue-winged Wasp, at the lower left, for example, feeds beetle grubs to its young, but the adult eats nectar from flowers, pollinating the plants in return.



Rough-fruited
Cinquefoil
(*Potentilla recta*)

Depford Pink
Dianthus armeria

Golden Ragwort
Senecio aureus

You cannot wander the woods and fields without noticing wildflowers, which hold special interest. Not only are they colorful and attractive, but in time you learn that they have a cadence. Trees flower in the spring and fruit in summer. Different wildflowers bloom at different times. Some bloom in early spring, others bloom in late spring. Still others bloom in summer or fall., and a few bloom continually. Early bloomers avoid competition for space by being cold tolerant and by growing before the trees leaf out when sun light can still reach the forest floor. Later species grow aggressively, chocking out the completion. Nature is a battleground and plant are soldiers.

- Rough-fruited Cinquefoil is a wild rose,
- Depford Pink is a wild carnation, and
- Golden Ragwort is a little sun flower.



Aromatic Aster
Aster concolor

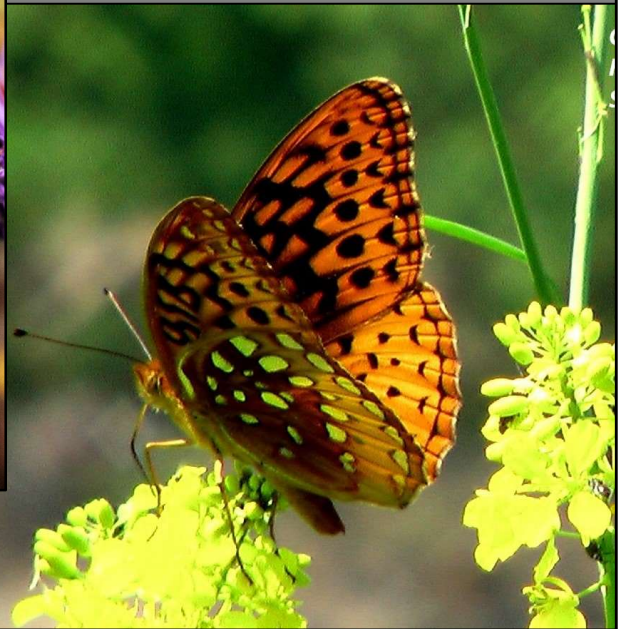
Common Buckeye

To see lots of butterflies, you need to find lots of flowers. The more dense the flowers, the more likely you are to succeed. Aromatic Aster, on the left, is a super attractor. One of its most common pollinators is the Common Buckeye butterfly. Buckeyes are common in backyards from August to mid-October.



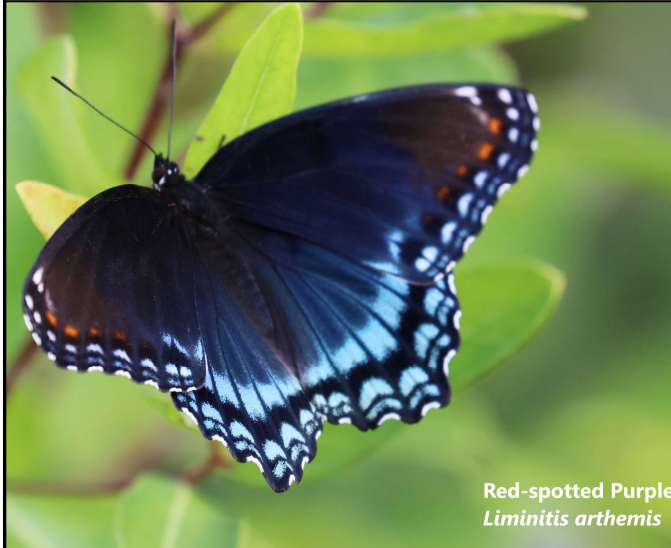
Variegated
Fritillary

Great Spangled Fritillary



Butterflies, other insects, and even higher species can usually be grouped into families of similar types. Our area, for example, has four species of Fritillary. The Variegated Fritillary and Great Spangled Fritillary are two of them.

Mimicry



Red-spotted Purple
Liminitis arthemis



Pipevine Swallowtail male
Battus philenor

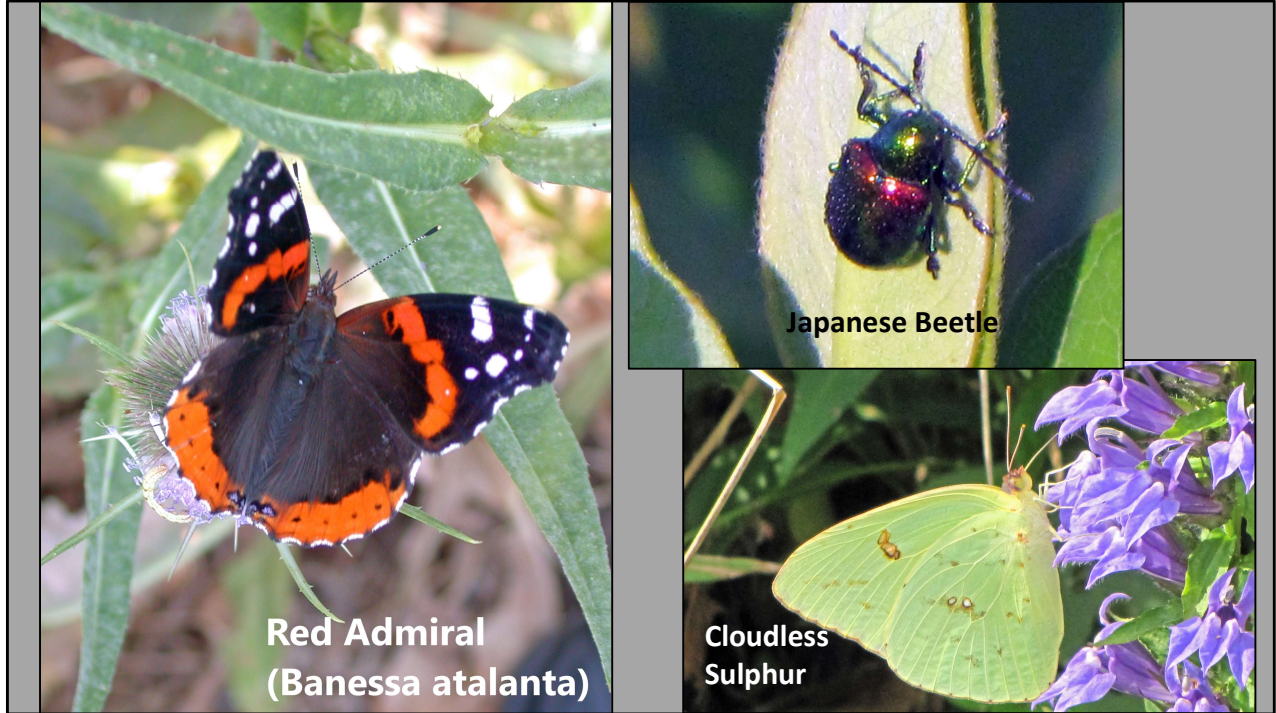
MIMICRY. An interesting phenomenon among butterflies is mimicry. Sometimes butterflies from different families superficially resemble each other. The Red-spotted Purple on the left, for example, is a common species in the east. It is a tasty snack for birds, but is rarely eaten. This is because it resembles the Pipevine Swallowtail, on the right, which is toxic to birds. Once a bird eats a Pipevine Swallowtail and throws up, it will never eat another or anything that looks even a little like it. In this way, the tasty Red-spotted Purple gains protection from the toxic Pipevine Swallowtail. This situation is known as “mimicry” and is common among butterflies and other insects.



Some butterflies migrate like birds. Painted Ladies, like that at the upper left, cannot survive in freezing areas. Consequently, they overwinter in the south. They migrate north in spring into our area often in large numbers. Several species of butterfly migrate including the Monarch.

Often you will see butterflies gathering near mudpuddles or wet ground, such as the Cloud Sulphur's at the lower left. These gatherings are called "puddle parties." The moisture causes minerals and salts to dissolve out of the soil. The butterflies ingest the salts, which are important nutrients.

Finally, many flowers are optimized for butterflies, or other pollinators. The Yarrow wildflower at right, is a collection of tiny white daisy-like flowers that form a platform. This arrangement is a specialization for butterflies, which prefer to land on a platform and for very small bee species. Other examples of butterfly flowers are milkweed, daisies, and butterfly weed. Many plants are specialized to attract a limited variety of pollinators to improve fidelity and thus increase successful pollination.



**Red Admiral
(*Banessa atalanta*)**

Japanese Beetle

**Cloudless
Sulphur**

Red Admiral males, at left, set up and defend territories to attract females. They are aggressive and even dart out and attack humans.

Japanese Beetles, at the upper right, are an invasive species, but very colorful.

Lastly, the Cloudless Sulphur is another species of yellow butterfly, but is a bit larger than most others and has a greenish tinge. It is feeding on the Great Lobelia wildflower.



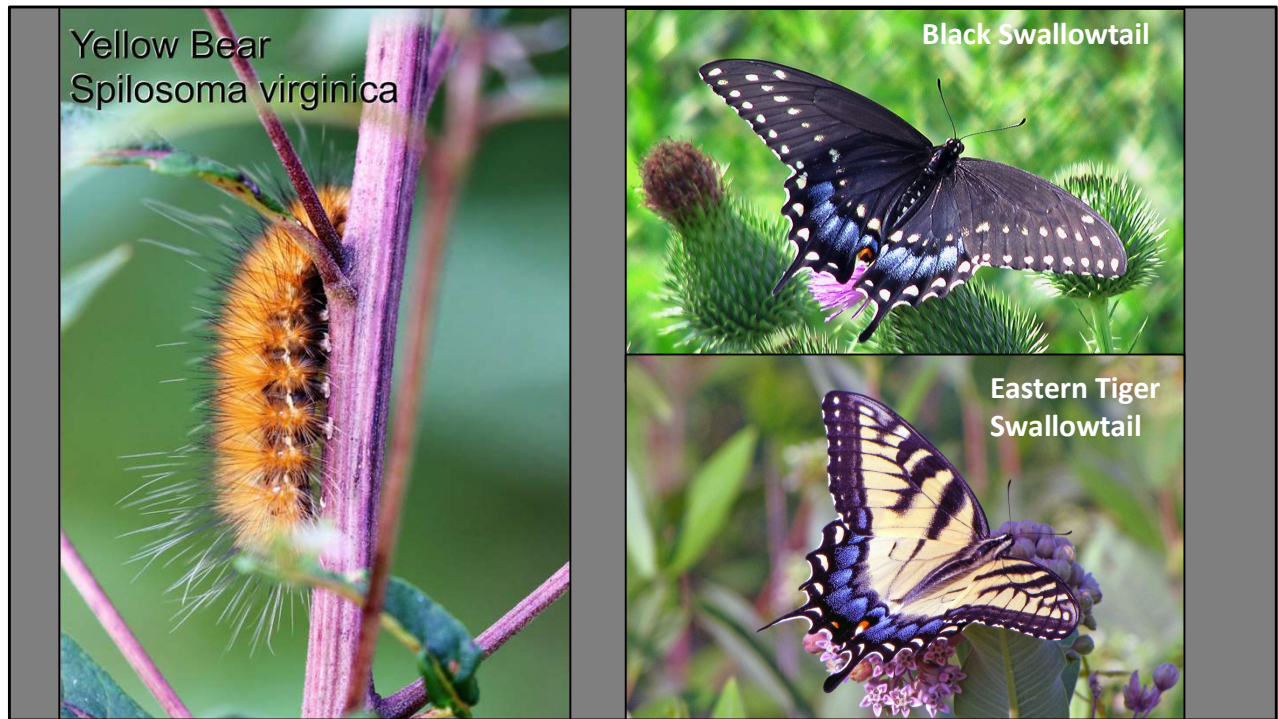
Early blooming Blue Phlox flower, on the left, shows seasonal variation; they tend to be white with a blue center. Later growths are uniformly blue.

The “Pearl Crescent” butterfly is abundant, but small and often overlooked.

And the “Orange Sulphur” is yet another common yellow butterfly.

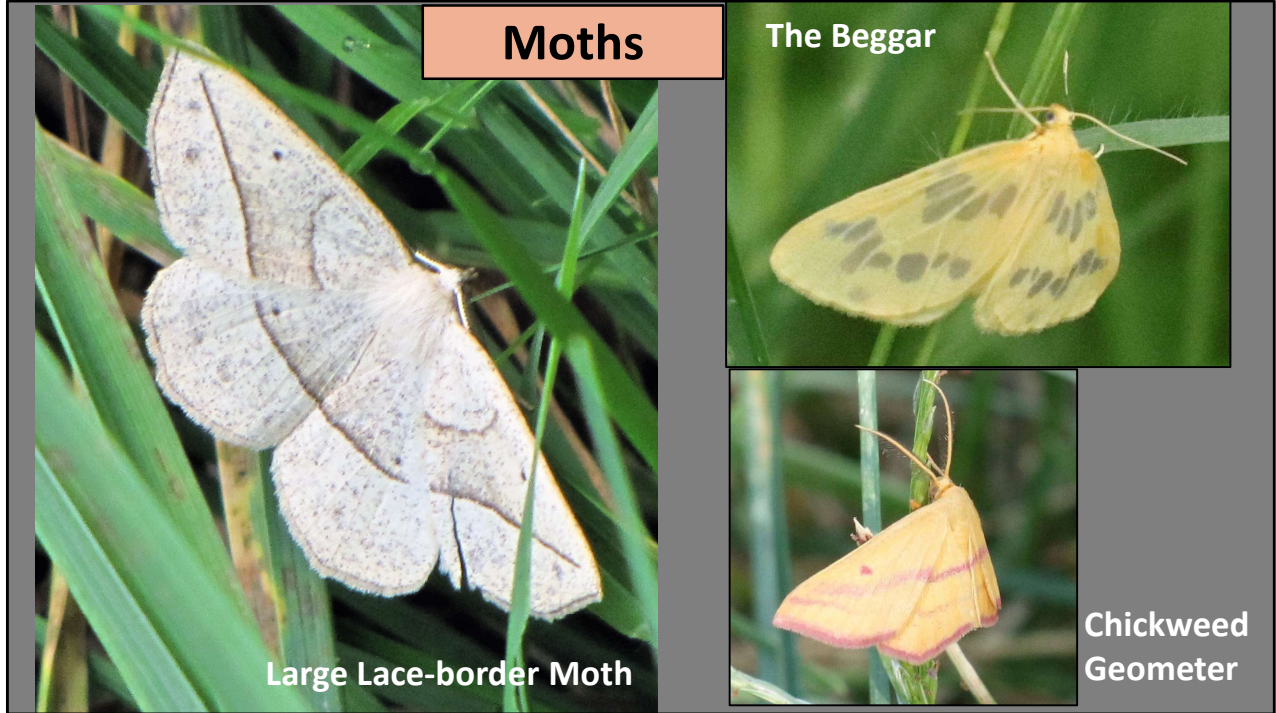


Brown butterflies are often overlooked, but are attractive in their own right. The Questionmark at the lower left gets its name from markings on the back of the forewings. It has a comma and dot that resemble a question mark.



Caterpillars are baby butterflies or moths. They are an important source of food for birds and wasps.

Colorful butterflies are beautiful, but their color is often warning coloration or mimicry. This is true of most large black butterflies.



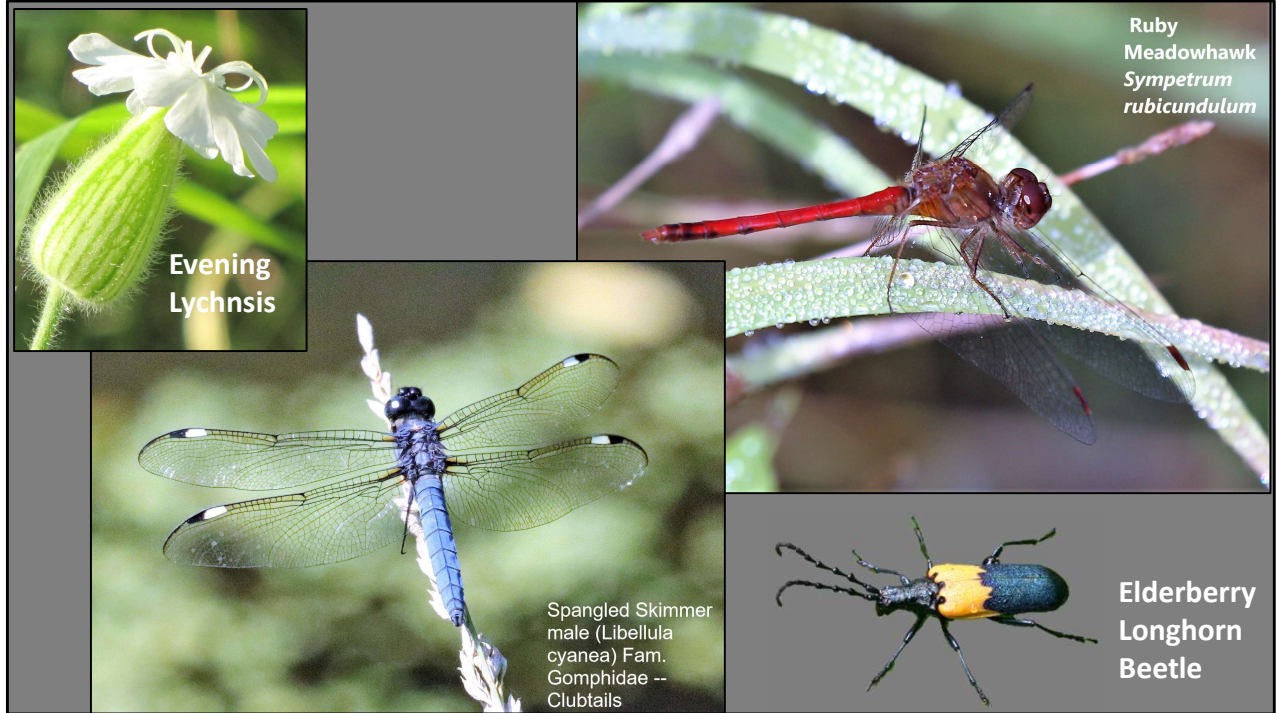
It is easy to forget that moths are also Lepidoptera because generally they only fly at night. But many moths are beautiful and, in their way, rival butterflies.

Dragonflies



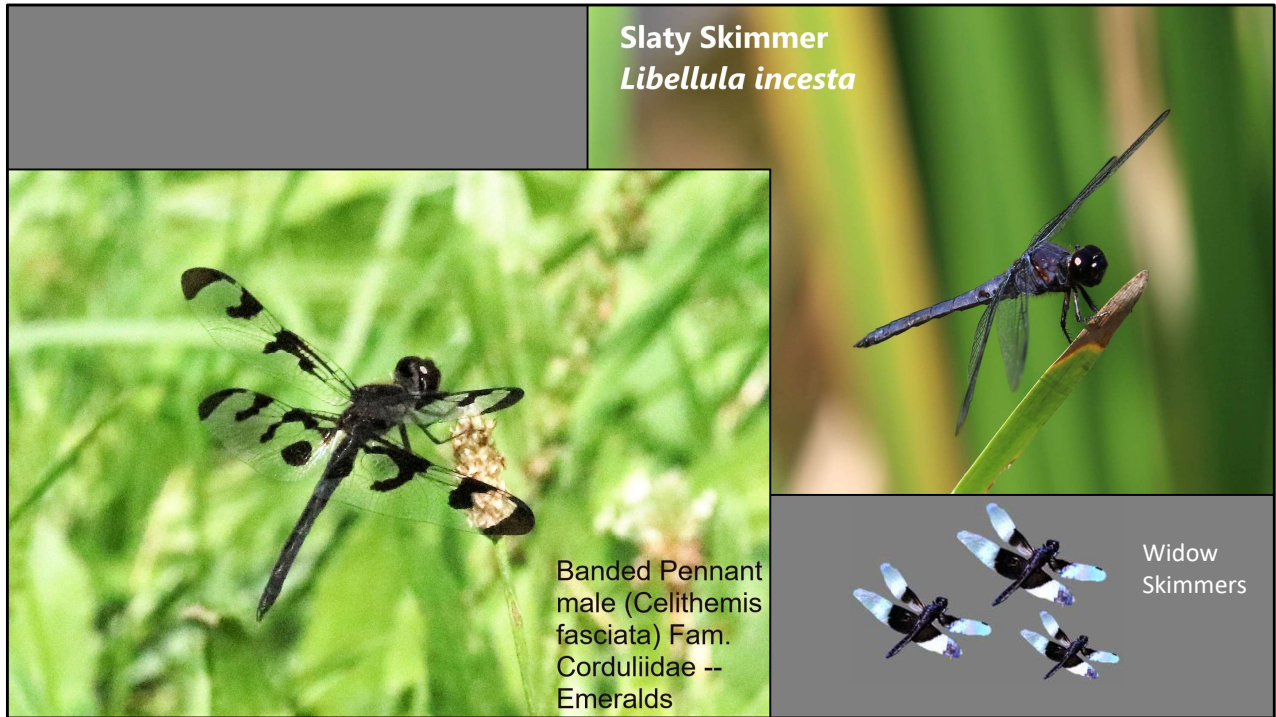
Halloween Pennant

Another group of colorful insects are the dragonflies. Dragonflies are fast and flashy. When I was young, I was a little afraid of them because my mother told me they would sew my mouth shut. This, of course, is a myth, dragonflies are harmless. But kids usually believe their mother's. Here is one of my favorite dragonflies, the Halloween Pennant.

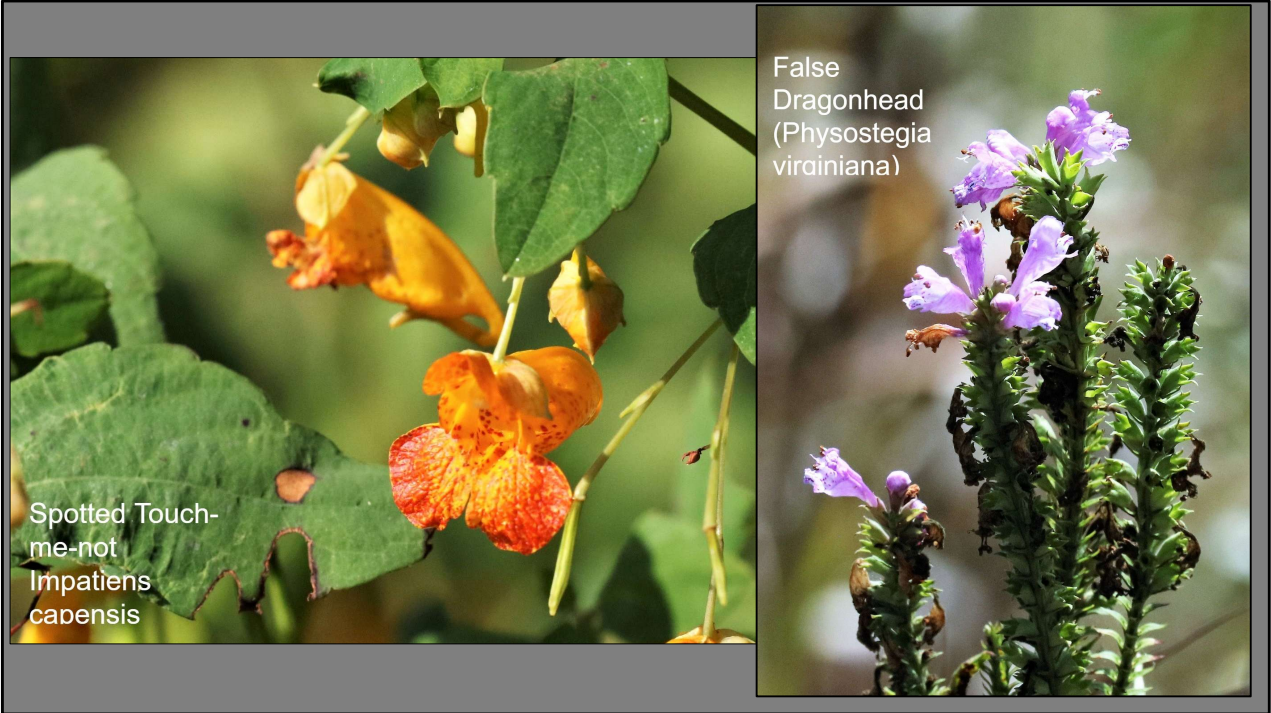


Unlike butterflies, dragonflies lose their color when collected. Consequently, the only way to preserve their beauty is through photography. Dragonflies are excellent hunters and great fliers. They can fly forward, backward, sideways, and even upside down.

The Evening Lychensis wildflower at the upper left is common. Its swollen calyx (hypanthium) below the petals looks like a hairy watermelon. Champion flowers in the genus *Silene* have a *similar* appearance. And the Elderberry Longhorn Beetle at the lower right is abundant along the C&O Canal in Williamsport in June along with dragonflies.



Dragonflies are famous for their zig-zag flight, which is the result of hunting and catching mosquitoes, gnats, and other small flying insects.



Spotted Touch-me-not
Impatiens capensis

False Dragonhead
(*Physostegia virginiana*)

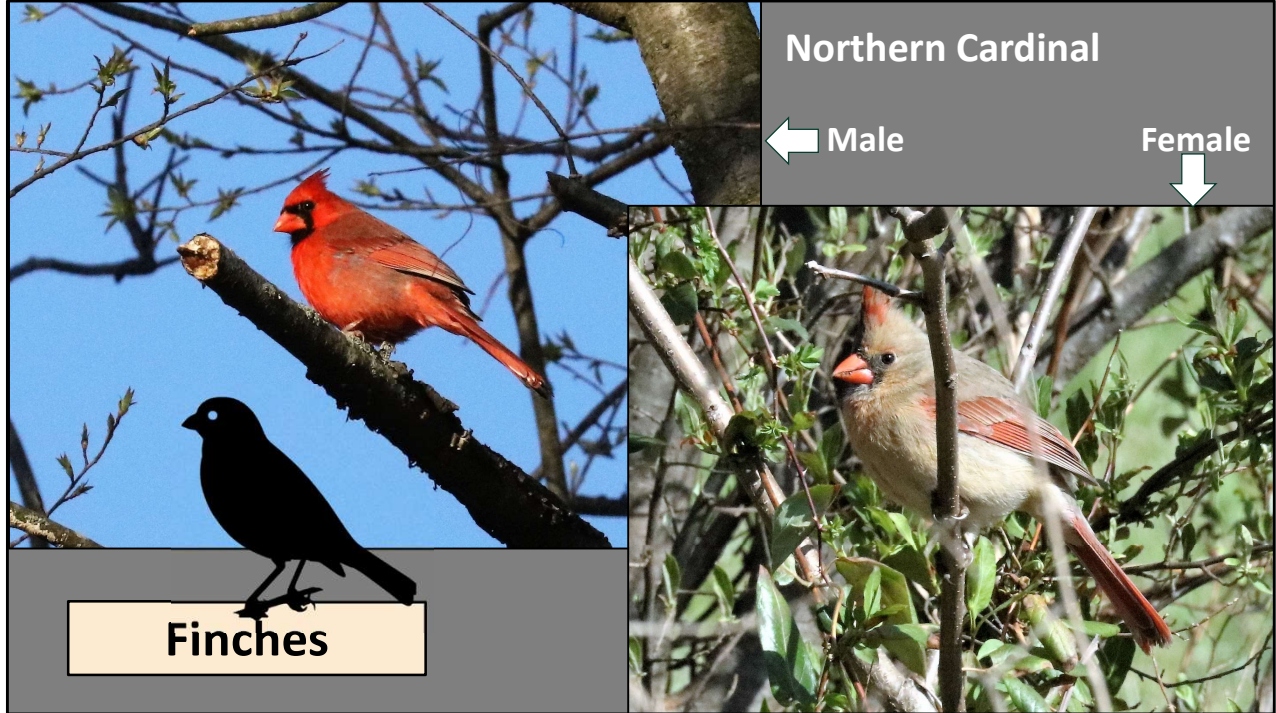
No matter where you go, you encounter wild flowers. The Spotted Touch-me-not is just the right size for a bumble bee to crawl inside. Touch-me-nots get their name from the fact that their ripened seed pods burst when disturbed, scattering the seeds.

The False Dragonhead another bee flower.

Birding

Antietam
National
Battlefield

Another wildlife activity for hikers is birding. Birding is the number one hobby in the USA. I didn't discover birds in a big way until I was about 20 years old. I've been hooked ever since. It is a daily activity, summer and winter.



Perching birds, like Cardinals, have one toe facing backward, and when they sit on a branch the weight of their body stretches a tendon in the leg that automatically closes their toes around the perch allowing them to sit without flexing muscles or using energy. Most of our common backyard birds are of this type and includes Finches, Mimics, Thrushes, and more.

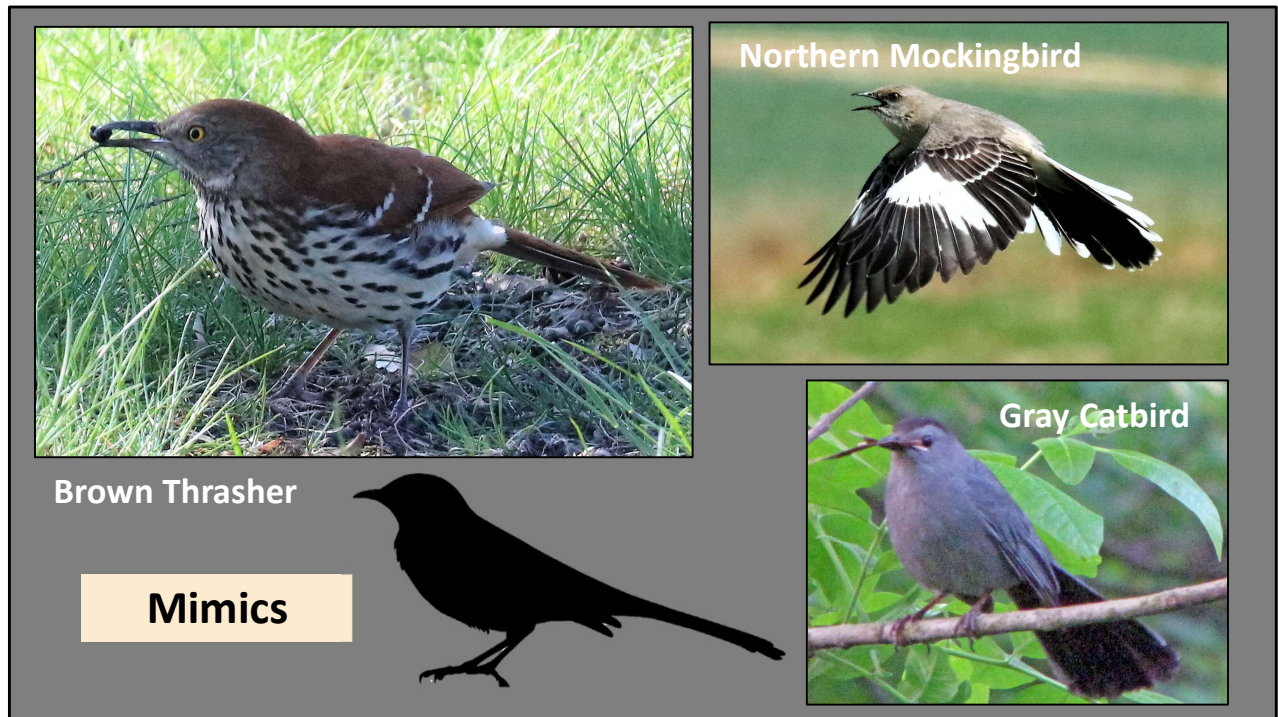
Finches have a short, conical beak that is optimized for seed cracking. While all birds eat insects, those specialized for insects must migrate in winter or starve. Those species that can eat seeds are better able to overwinter. Finches, as a group, can be recognized by the silhouettes, narrowing the field for identification.

Male Cardinals are bright red to attract females and to intimidate rival males. The females are red and gray.



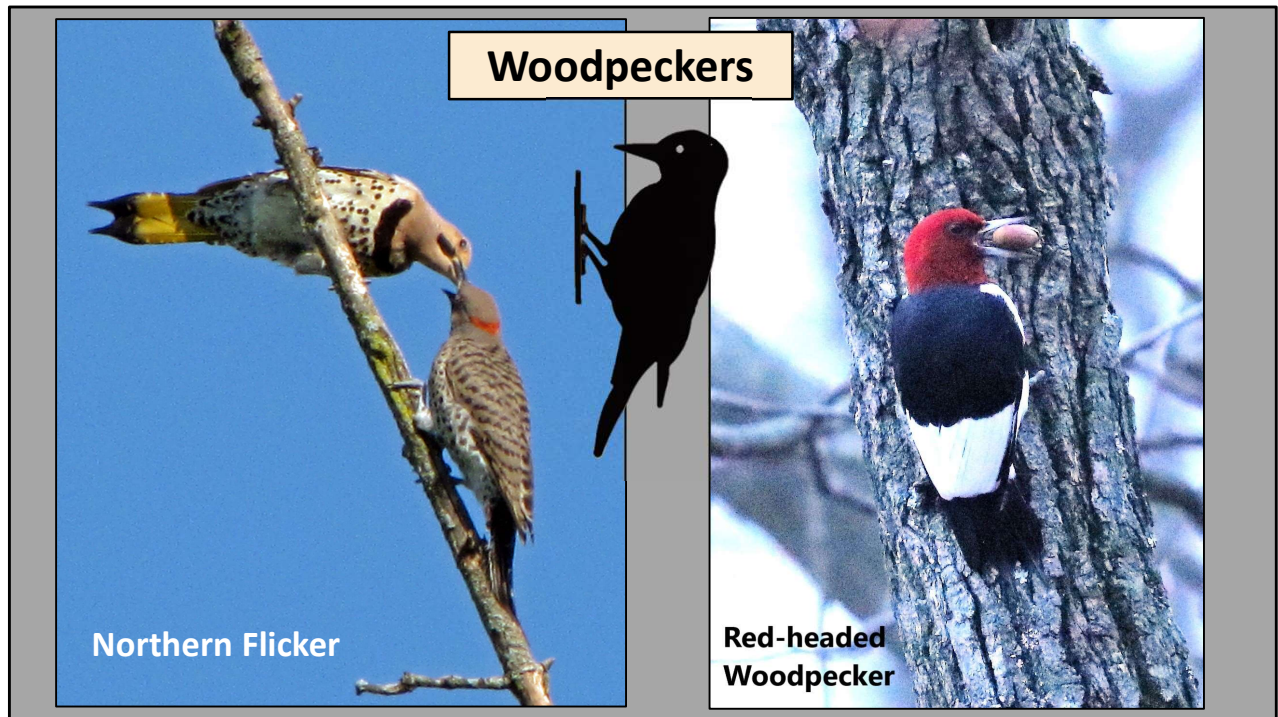
Sparrows are finches, too. Not all sparrows are brown. The Purple Finch, for example, is raspberry colored and weakly striped.

While Sparrows appear uniform, with practice birders learn to the differences. The Field Sparrow, for example, has a brown cap and orange bill, while the Grasshopper sparrow is very small, has a striped crown, flat head, sharp tail, and is a weak flyer.

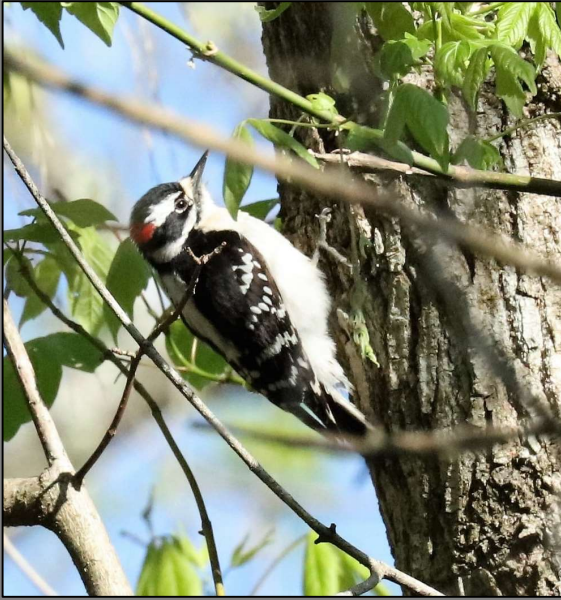


Another family of perching birds are the Mimics. Mimics are named for their ability to sing the songs of other species of birds. The Brown Thrasher has the largest repertoire of North American birds and is able to vocalize 3,000 distinct songs. My university ornithology professor, on field trips would listen to Mockingbirds, and then tell you what other species were found in the area.

Thrashers and Mockingbirds aggressively defend their nests and even strike dogs and people. The Mockingbird in the upper right was attacking me when I took the picture. Another common feature of mimics is a more or less curved beak.



Woodpeckers are hard working, attractive birds. We have six species of Woodpeckers in Maryland. Here we see the Northern Flicker and the Red-headed Woodpecker.

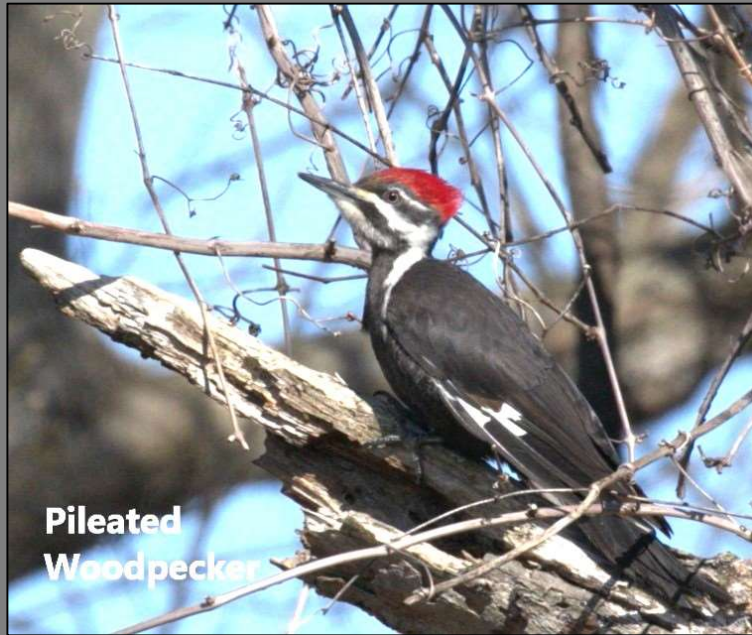


Downy Woodpecker



Red-bellied Woodpecker

Our most common woodpeckers are the Downy and the Red-bellied. I see or hear them almost every day.

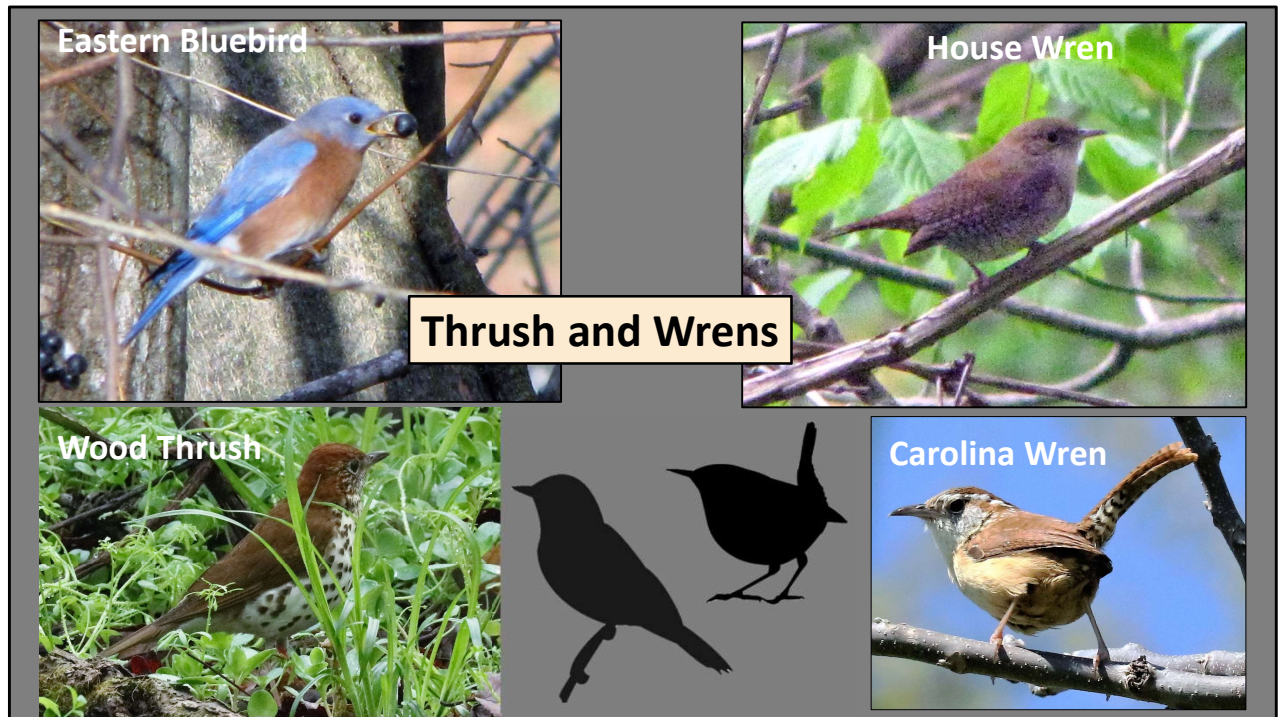


Pileated
Woodpecker



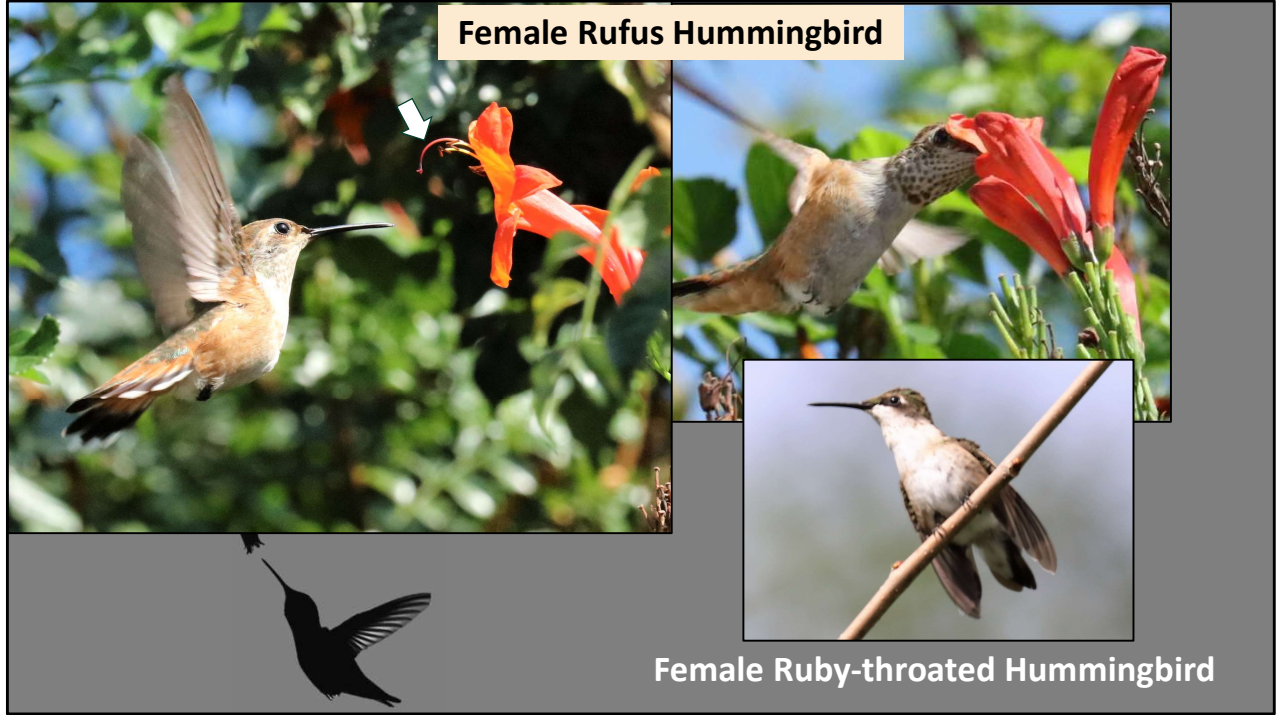
Yellow-bellied
Sapsucker

The Pileated Woodpecker is our largest. It is about the size of a Crow and is considered a “foundation species” because it drills large cavities in trees for its nest. Once these holes are abandoned, they are used by other birds and by squirrels as living space. And the Yellow-bellied Sapsucker has the best name in the bird world.

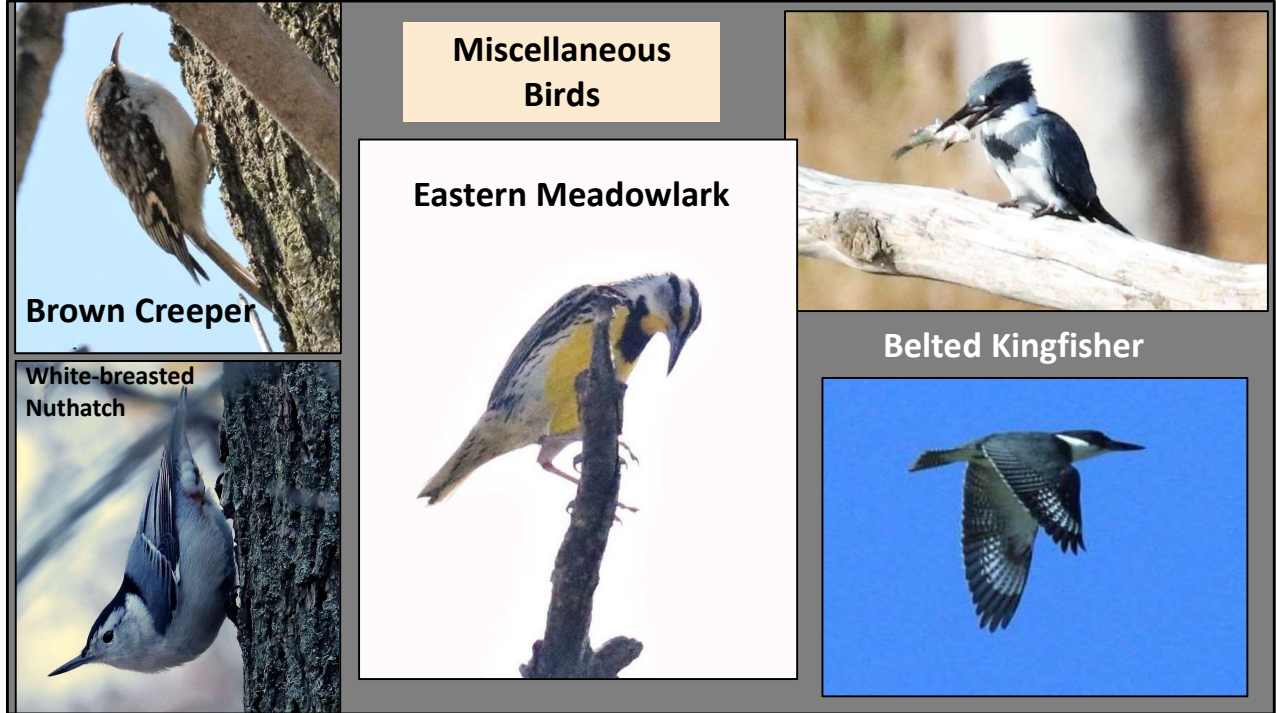


Thrushes include Bluebirds, Robins, among others. They are stocky, with straight bills, and rounded heads.

Wrens are usually small, and have short tails, which they hold at a cocked angle. They like to scold people who get too close.



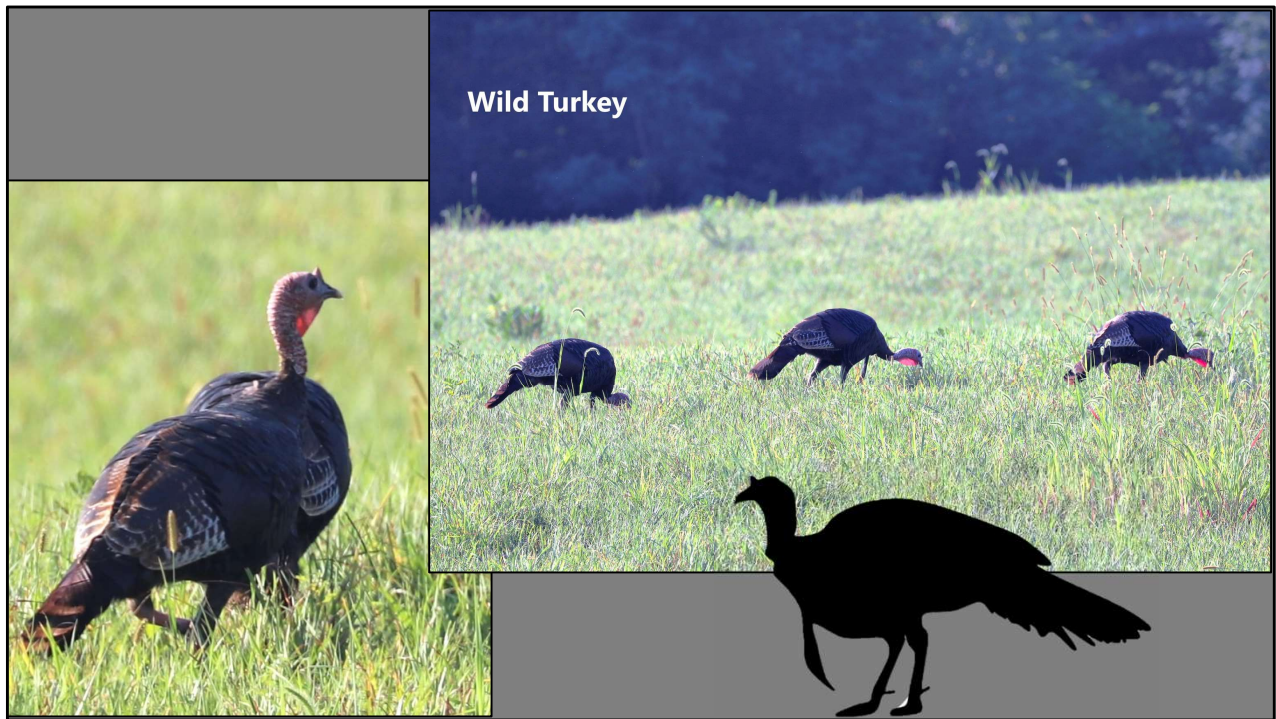
Everyone loves Hummingbirds.. Hummingbirds are attracted to red, tubular flowers like the “Cape Honeysuckle,” above. The flower’s pistol, indicated by the arrow, is curved downward so it contacts the forehead of the hummingbird, which is usually dusted with pollen from previously visited flowers..



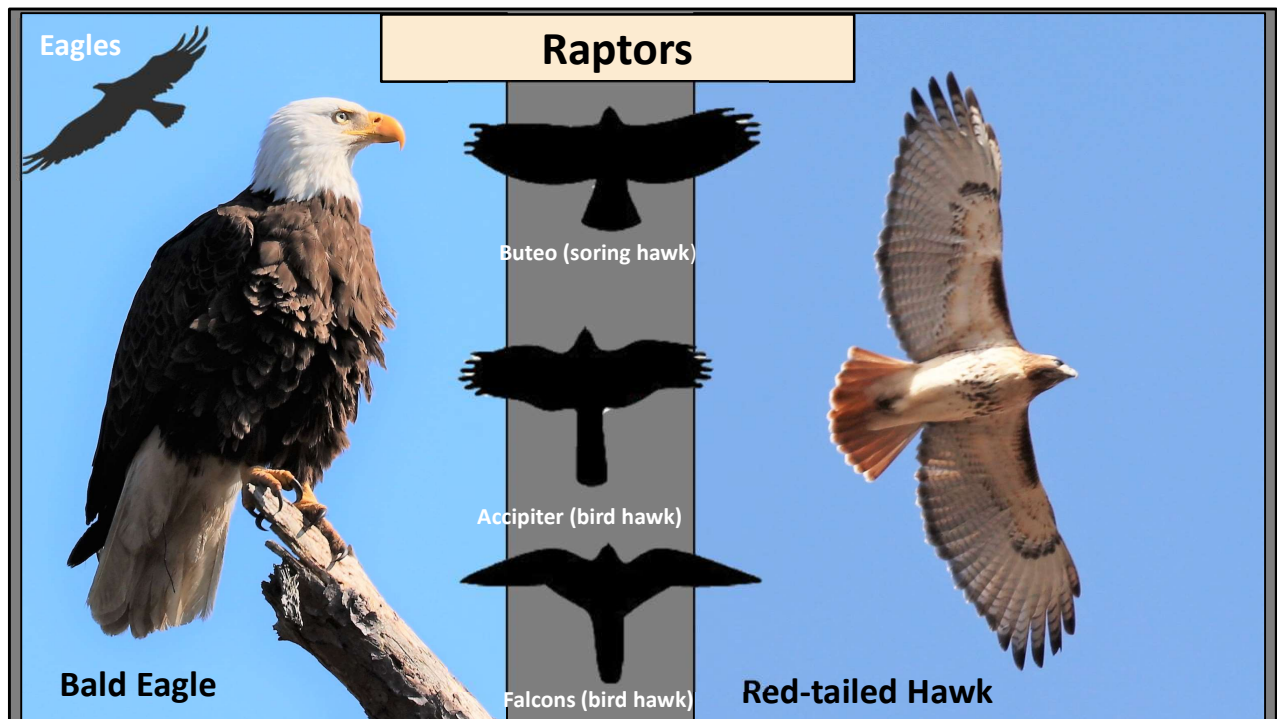
There are many more families of perching birds than I can show today, so here is a smorgasbord of species. Creepers and Nuthatches, at left, search the bark of trees for hidden insects.

Eastern Meadowlarks are a ground dwelling species. You might think of them as the Mormons of the bird world. The males typically have two mates at a time, sometimes three. Meadowlarks are becoming rare in the east due to habitat destruction.

Belted Kingfishers are common in our area along streams and lakes. They are a handsome species.



A welcome sight as Thanksgiving approaches, Wild Turkeys can be found almost anywhere. I've seen them in alleys in Hagerstown.



Raptors are my favorite birds because, like me, they are meat eaters. None of this sissy vegan stuff for them.

Bald Eagles are our National symbol, the all-American bird. Many consider them the Monarchs of the bird world.

Another popular bird is the Red-tailed Hawk at right. You can easily recognize it by the belly band, uniform red tail, and the dark leading edge to the wing.

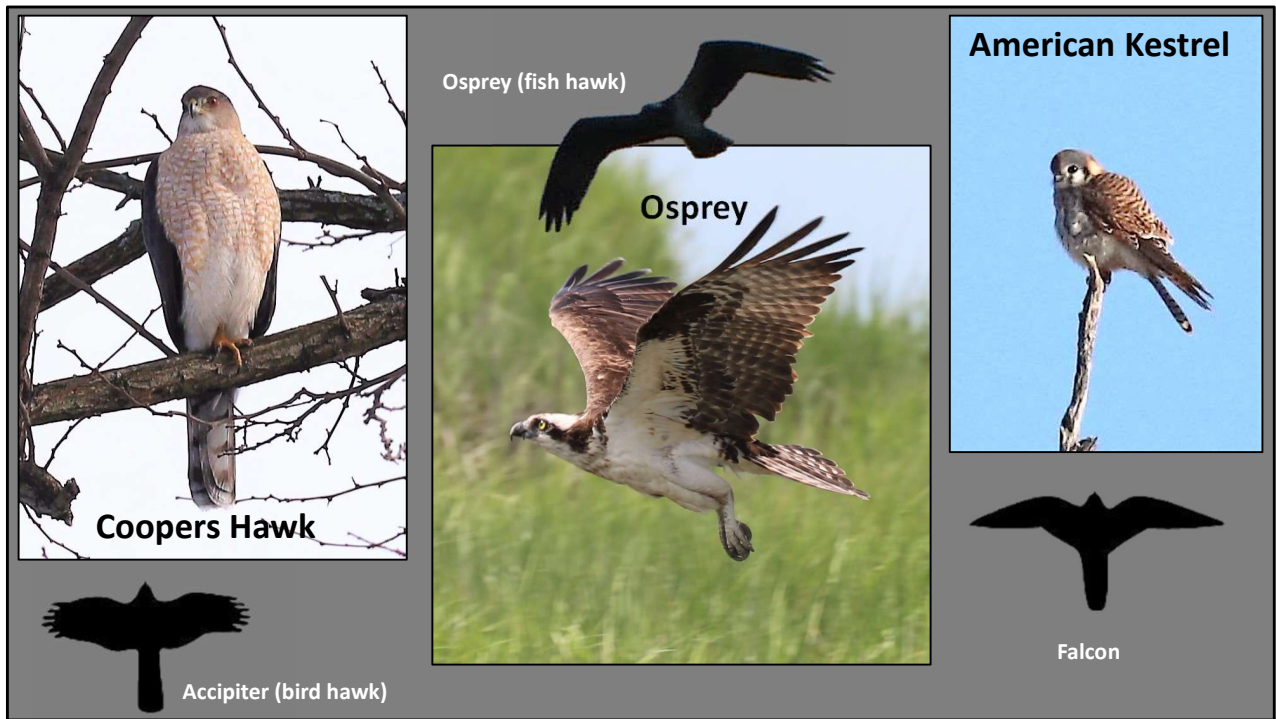
Finally, the silhouette diagrams show the difference in shape of various raptors including: Buteos (soaring hawks), Accipiter's (bird hawks), Falcons (another bird hawk), and Eagles.



Probably the most commonly seen raptors are the Vultures. I see them on every walk. These unsung hero's of the bird world keep our trails and roadsides clean and fresh.

You know that your getting old when these guys start circling after you leave the house.

Turkey Vultures are brownish and have a red head, hold their wings in a “V” when soaring, have a tipsy flight, and hold their tails straight back. Black Vultures, in contrast, are entirely black, hold their wings flat when soaring, and fan their tail as shown in the silhouette diagrams.



Here are more raptors. The Cooper's Hawk is a bird hunting hawk. It is a powerful flyer and will chase birds right into the shrubbery.

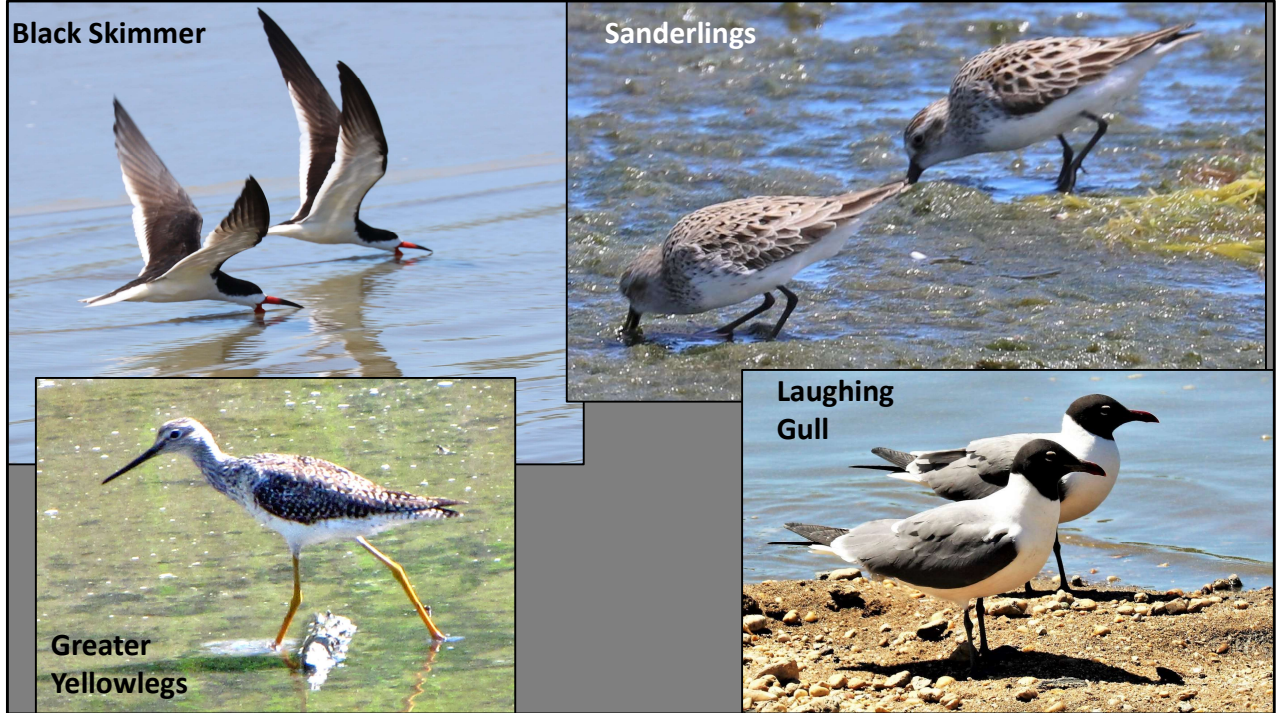
The American Kestrel used to be called the Sparrow Hawk. It is a small falcon.

**Forsythe National Wildlife Refuge
Atlantic City, N.J.**

Osprey



The secret to seeing lots of different birds. To see lots of different species, you have to change habitats. Forests, fields, lakes, and streams are all great. But the BIG DADDY of habitats is the Salt Marsh. These are one of the most diverse habitats. Here is a shot of an Osprey nest platform located in the salt marsh at Forsythe National Wildlife Refuge, about 5 mile from Atlantic City, N.J.



Because salt marshes are so productive, they support many species. Black Skimmers are the largest Tern. They skim the surface and snap their bills shut when they detect a fish or shrimp.

Sanderlings and Greater Yellowlegs are probers searching for invertebrates.

Gulls eat anything including fish, clams, snails, worms, and sandwiches.



Wading birds, like those on this slide, all have long legs. The Black-necked Stilt has the second longest legs exceeded only by the Flamingo. Wading birds eat various invertebrates, crabs, tadpoles, and small fish. Additionally, Great Egrets and Great Blue Herons will eat mammals like moles and mice, and even ducks.

Feeding Frenzy

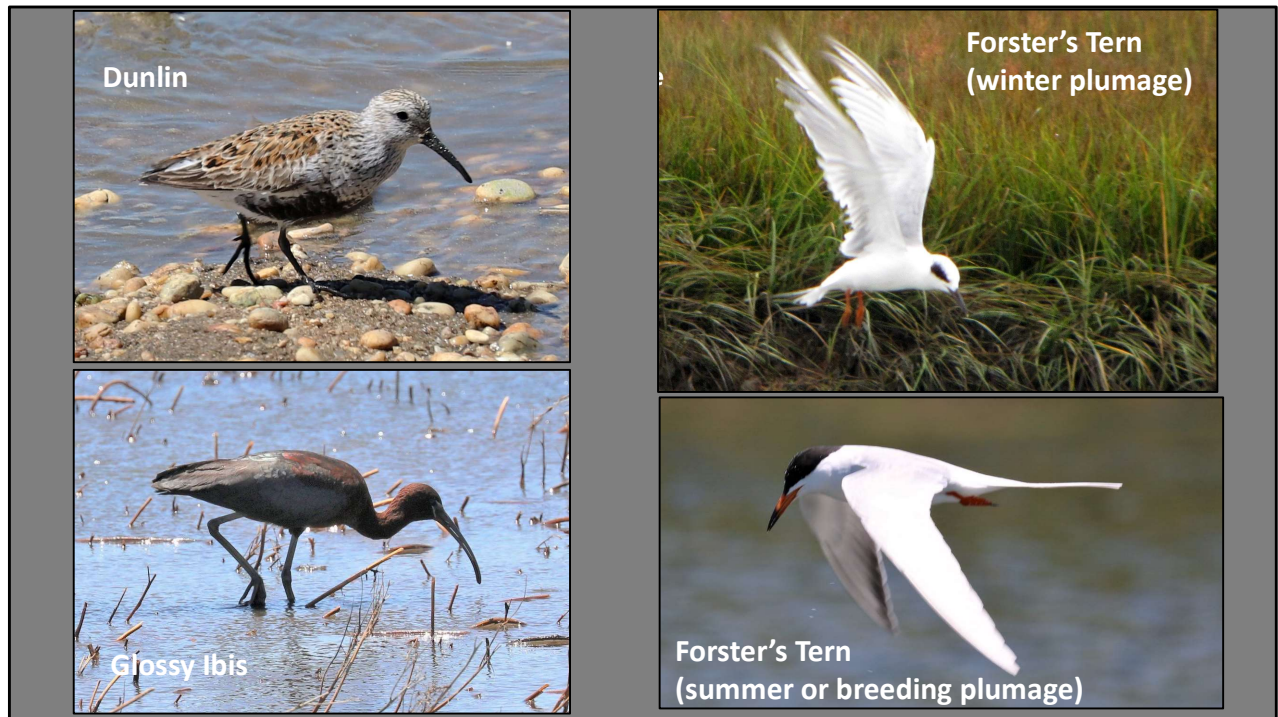
- Forster's Tern
- Double-crested Cormorant
- Various immature seagulls



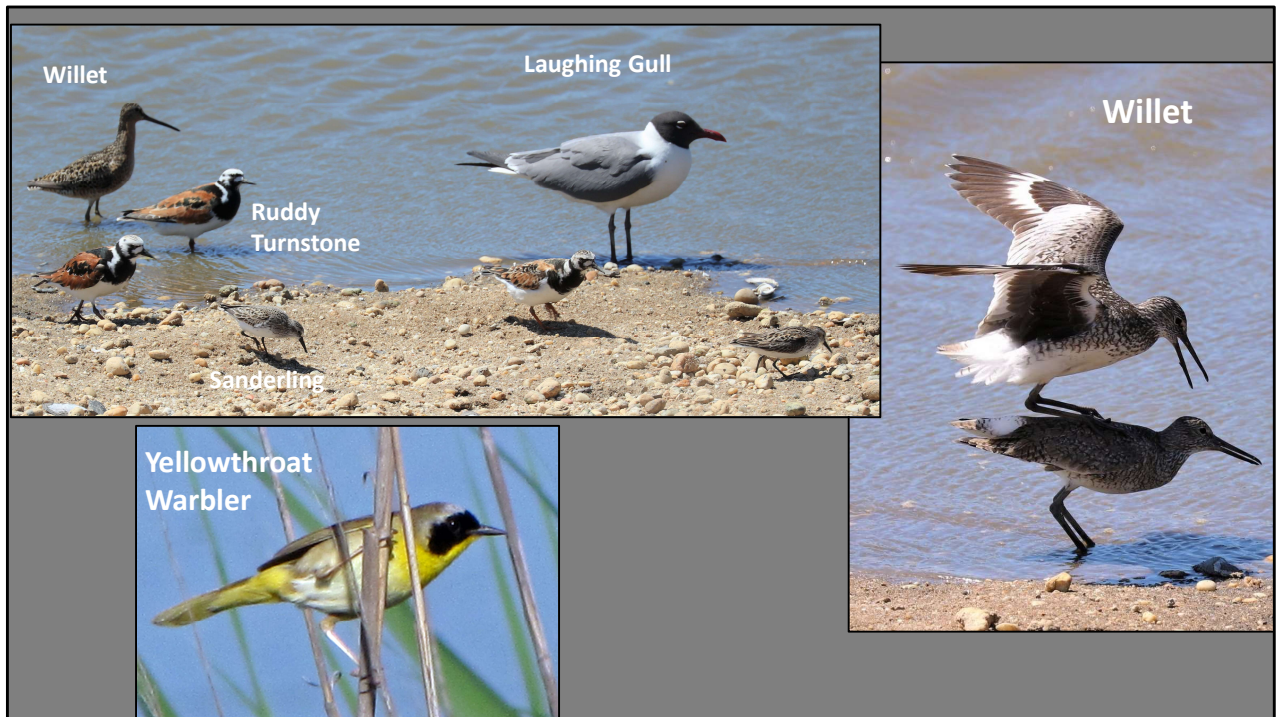
Great Blue
Heron



Here is an example of birds in a feeding frenzy. When birds find a bait ball, they gather in mixed flocks and large numbers, diving into the water. Some of the Cormorants swim with their body submerged and only their neck and head above water.



Shore birds come in two varieties, Probers and Fishers. Probers look for invertebrates in the mud, while fishers hunt for fish and shrimp. The Dunlin, at the upper left, is a medium sized Sandpiper. And the Forster's Terns in the two pictures at right show the difference between winter and summer plumage.



Here is a group shot. Of course, even in a salt marsh you will see perching birds like the Yellowthroat Warbler. I think the Willets at right are playing hopscotch, but whatever they were doing they were vocally appreciative.



The Whimbrel is another wading bird. It has a striped head and curved, probing bill.



Birding, however, is not for the faint of heart.

In the old days, I never went birding alone. That way there was usually somebody slower than me. Unfortunately, that method doesn't work anymore. Consequently, if you're looking for a safer way to watch birds, consider backyard birding.

Back Yard Birding



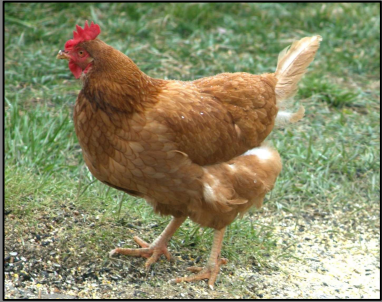
Rose-breasted
Grosbeak



Song Sparrow

Birding can be done anywhere and at any level. Back yard birdfeeders are a great way to start and to keep you entertained year round.

Here is my herd of Mallard ducks that I maintain in case meat gets expensive again. Even somewhat rare birds, like the Rose-breasted Grosbeak at right, show up now and then.



Spring Chicken

Philadelphia Eagles



Bad sign

You never know what will show up at the bird feeder.



The End



Well, I hope you enjoyed our little walk with small things and at least got an idea of the hidden world around us.