

THE GREAT OUTDOORS



Inset shows downy woodpecker (photo author) compared to the hairy woodpecker (photo Becky Matsubara, flickr). Note the much longer heavier bill on the hairy woodpecker.

Peek-a-Boo

For these cavity nesters, the best way to distinguish between hairy and downy woodpeckers is the beak relative to the head size.

J. Morton Galetto, CU Maurice River

Part of my daily routine is running my dog, Hey Mambo Italiano, through the wooded section of our property. She bird-hunts while I birdwatch; it's an amicable arrangement.

Often when we're out I hear woodpeckers drumming, primarily the downy and red-bellied species.

On a recent *CU Maurice River* interpretative walk I explained that drumming serves two purposes: excavation of a nesting cavity and communication. When they communicate, especially in the spring, it is to set up territories and for courtship/mating. If you are a proficient birder you can identify woodpeckers by their hammering cadence. My auditory memory is not especially robust, but I like to think I can identify a downy woodpecker's tapping from other local types.

Downies are often softer and slower than their relatives in our area. The likely wood pecker species in Southern New Jersey are downy, hairy, red-bellied, yellow-bellied sapsucker, red-headed, pileated, and flicker. Each has a number of strikes per second when at full throttle: the hairy is as rapid-fire as 26 beats per second, the flicker 25, red-bellied 19, downy 15, and the pileated tends to vary from 10-30. They also come in with a special loudness at times, but what they are drumming on makes a massive difference. On one of my morning neighborhood walks I watched a red-bellied hammering on a metal street light pole and it made a terrific racket; I suppose he was desperate for a date.

Cornell Bird Observatory describes cadence in the case of the red-headed as, "including a two-part hammering sound, as well as a staccato roll somewhat like that of a downy woodpecker (with one-second bursts of 19-25 beats per second, repeated 2-3 times). They will also tap slowly on surfaces near the nest cavity when choosing a nest or communicating with their mates." A pileated's drumming is often deep, descending, and trailing off in volume. So you see this can get rather complex. Without a spectrogram, or visual representation of an audio sound, it would be impossible to count. But much in the way you can tell variations in one person's voice from another, you can hear the difference.

During the CU interpretative walk one of the participants asked me if the Merlin phone application was able to identify woodpeckers by their hammering. My response, "I'm not certain; I suppose it might since it has recordings of the different species drumming." Merlin is a free mobile application developed by Cornell Lab for bird identification. It allows you to select "Sound ID" which will record sounds around you and often attribute a species to each call. So I asked, "Hey Mambo, should we try out Merlin on the downy's tapping?" She feigned disinterest, so I proceeded with the diagnostics, and lo and behold on the phone

screen appeared "Downy Woodpecker."
Hooray for Merlin!

Hairy and downy woodpeckers are often confused with each other because they look so similar. In fact the downy is a downsized hairy. The downy's body is 5-7" and the hairy is 9.8." Some ornithologists believe that they evolved to look like a hairy in order to be mistaken as the larger species. In the woods there is often no frame of reference for size, so I will offer further distinctions between the species.

They both have black backs with white spots in the wings and each has a black line through the eye with a white brow. On the hairy an arc of black goes from the shoulder into the white chest but it is not always obvious, while the downy normally doesn't have this arc, and any mark would be much less pronounced. However the best way to distinguish the two species is the beak relative to the head size. A hairy's beak size is as long as the width of the bird's head in profile. The downy's beak is much smaller and more needle like, only half as long as its head.

In addition to its drumming the downy has a high pitched, very excited, shrill descending whinny – sounding like a bunch of rapid squeaks to me. Both sexes make this call.

The hairy whinnies as well but tends to stay at the same pitch and not descend. It also has a sharp call described as "pik," which to me is a short squeak. Further there is a second or two pause between squeaks. The hairy's single note call is louder and described as "peek." The downy's drumming tends to blend almost into one continuous sound. The hairy is a sharper, more defined staccato.

Pauses help to refine identification between the two species. Downies drum more frequently than hairies with a few seconds between riffing off. But hairies tend to wait 20 seconds between volleys.

With all the pounding on tree trunks one might ask why they don't get a headache - or worse. Woodpecker bills are designed such that the lower mandible is longer, thus absorbing the shock. The lower mandible also has a spongy bone at its base, between the beak and the skull, to minimize the effect of the impact. And the bird's brain has a forward and low placement to avoid concussion when pounding.

Most woodpeckers, including the downy, have zygodactyl feet, or two forward-facing toes and two backward. This, along with a stiff straight tail for support, allows them to navigate vertically on a tree trunk.

Passerines or perching birds have three forward-facing toes and one backward, allowing them to grip branches.



Most woodpeckers have zygodactyl feet and a stiff tail that aide them in clinging to the sides of tree bark. Note this female downy's short beak in relation to its head size. Photo Richard Griffin, Flickr.

Woodpeckers are known for their specialized tongues. The downy's slender beak and size allow it to access food in plant stems that other woodpeckers can't manage. They are also light enough to perch on weedy stalks. They eat insects, which make up about 75%

of their diet. They also eat acorns, berries, and grain-like material. They are more comfortable in backyard habitats than some other woodpeckers and will readily come to birdfeeders, especially for suet, black oil sunflower seeds, millet, peanut butter, and woodpecker mixes. I'm told they will nectar from hummingbird feeders but I have never seen one do so.

To access food, woodpeckers have specialized tongues for snagging their different nutritional preferences, and their tongues are about 1/3 of their body length. If your tongue were that long, about two feet, it could be a necktie. So where do they store all that equipment? It actually wraps around the back of their skull and is attached at the nostrils to a bone called the *hyoid*. At the eyes it splits into a V and one length wraps around each side of the skull then meets again at the base of the lower mandible. Since it is elastic and exterior to the skull, it offers additional cushioning for the brain.

Downies are North America's smallest woodpecker and the most abundant in eastern North America. They nest in tree cavities that they excavate. A pair has one brood of 3-8 eggs, with males and females raising the young as a tag team. Fecal sacs are self-contained structures that hold a

chick's waste; about every 3-4 feedings a chick expels one and the male removes the soiled diaper. Near the end of nesting (20-25 days) the male no longer takes out the trash and things get rather vile. Possibly this accounts for why they do not reuse the same hole, although they may excavate a different cavity in the same tree.



A male downy woodpecker peers out of the nesting its nesting hole. Both male and female raise the young making many trips with food for their young. Note the red patch on the back of their head. Photo Author.

Eggs and young are vulnerable to predation by snakes, squirrels, and both hairy and red-

bellied woodpeckers. The small entrance hole and depth of nest helps to deter a host of otherwise likely mammalian predators. Adults are targeted by birds of prey and domestic cats (keep cats indoors!).

Their numbers are thought to be stable or increasing. A trait in their favor is the fact that they do not need as large a tree as many cavity nesters and they are comfortable frequenting neighborhood yards, thus giving them a broader choice of habitats.

Downies are considered beneficial because they eat wood-boring insects that people abhor. Besides being a welcome neighbor, permit me the liberty of saying that they are cute as all get out!

Some consulted resources:

Cornell Lab of Ornithology, *All About Birds*

Sialis.org

What It's Like to Be a Bird, David A. Sibley.

Animal Diversity Website