



Pileated woodpecker resting in the sun.

## The Largest Woodpecker

There's a bird coming into my feeder these days that is frustrating the heck out of me. A hairy woodpecker, for some reason he is less interested in the suet we hang from the trees, and more interested in the sunflower seeds. But rather than take a seed and eat it, with a flip of his head, the bird spends his time tossing the seeds to and fro, searching for I don't know what, and sending most of the seeds down to the snow. The feeder gets emptied faster than it would have to be, but at least the little redpolls are doing a good job of cleaning up down below.

There are seven species of woodpeckers on Chippewa National Forest. Only the sapsuckers, red-headed woodpeckers, and flickers are migratory; the rest are permanent residents, although there is a migrational movement in northern Minnesota of a northern race of hairy and downy woodpeckers. These woodpeckers can remain where they are in winter because their food supply is still available under bark or in dead/rotted wood, out of reach of other birds. The little black-backed woodpecker is a boreal species, pretty rare on the Chippewa; the red-headed prefers less heavily wooded areas than most of the Chippewa. The rest of the birds you stand a good chance of drawing into your feeders. It seems to be sort of a rule in the woodpecker family that the smaller species tend to be bold and readily spotted, while the larger species tend more towards shyness. But with the right feeding arrangements, you can fairly easily bring in the downy, hairy, and pileated woodpeckers.

An interesting family, there are about 200 species of woodpeckers worldwide, and 23 species in North America. Most are usually seen in pairs or by themselves, due to their competition for food. Their lives center around trunks and branches of trees, which they generally move around on with their heads up and tails downwards. A central pair of stiff tail feathers is used to prop the bird against the tree when it is climbing or resting. Their feet are adapted for tree climbing, with short legs and long, strong toes with sharp claws for clinging to tree bark. Two front toes point forward, the fourth (outer) toe turns laterally at a right angle to the trunk, and the hind toe points down the trunk.

Most woodpeckers sport a straight, hard, pointed bill, which is used as a chisel with which to peck into trees. The nostrils are covered with bristle like feathers which protect them against

wood dust. They have a thick-walled skull, which absorbs the shock of pounding. Their tongues are very long and have hard, barbed tips. The tongue can be used as a lance to spear wood-boring insects. Hearing is used to detect insects moving or boring under the tree bark.

Forests that support healthy populations of woodpeckers need to have some dead and dying trees, known as snags. On the Chippewa, 41 species of birds, 17 mammals, and some reptiles and amphibians require snags and/or cavities for nesting and/or foraging. Up to 40% of birds species in Minnesota forests are cavity nesters. Because they make their own cavities, woodpeckers are termed “primary” cavity excavators. The suite of species which also use cavities, but don’t make these cavities themselves, are referred to as “secondary” cavity users. These are species such as the wood duck, common goldeneye, American kestrel, barred owl, screech owl, tree swallow, house wren, and bluebird. Mammals that require snags and/or cavities include species like the fisher, marten, raccoon, porcupine, squirrels, bats, and some mice.

The Pileated is our largest woodpecker. This is a black-and-white, crow-sized bird with a red crest. Males also have a red “mustache” stripe. You will recognize this bird at a distance due to its loud, harsh cry (“cuk-cuk-cuk”), large size, and undulating flight pattern as it flaps and swoops, flaps and swoops. Years back we used to survey pileated woodpeckers on the Chippewa, as a management indicator species because they need large trees in which to construct their cavity nests, and do best in landscapes which contain plenty of mature forest. A forest floor littered with decaying wood in humid conditions will promote fungal decay and the ants and beetles on which these birds thrive. One study showed that 96% of this woodpecker’s time is spent foraging on dead wood like logs and stumps. If you broadcast a recording of a pileated’s call, you will cause any other pileateds in the neighborhood to call back. I have even had them come swooping in at me, ready to do battle with the supposed interloper.

Pileated woodpeckers are territorial, a fact I first noticed on my deer stand, as year after year you can sit there and watch a woodpecker make its rounds. The pileated pair defends its territory all year long. In fact, when one of the pair dies, the other remains in the territory, seeking a new mate from adjacent areas. Territory defense is accomplished by drumming, calling, and chasing off other birds. I have read that they will strike with their wings, and jab with their bill.

Termed a “keystone species”, only large-diameter trees have enough girth to contain nest and roost cavities for the pileated woodpecker. This woodpecker plays a vital role in forests by excavating large nesting, roosting and foraging cavities that are then also used by a wide manner of birds and mammals – those secondary cavity users, especially the larger species. In this way, Pileated woodpeckers are key to providing habitat for species like wood ducks and pine martens. Take away the big trees, and you will preclude the pileated woodpecker, as well as a host of other wildlife.

The pileated woodpecker both roosts and nests in cavities. Roosting is in hollow trees or vacated nest cavities, at night and during bad weather. Roost trees usually have multiple entrance holes in the trunk, which provides for alternate escape routes in the event of a predator.

Nest cavities are usually located near permanent water. They are usually in dead or deteriorating live trees, often with a broken top. Storm events like the July 2012 storm that caused so much

forest damage on the Chippewa can create quite a legacy for woodpecker habitat. Both birds of a pair do the cavity excavation, by hammering the tree with their beak and chipping away wood. As the nest is constructed, the birds pick up the wood chips inside the cavity using their bill, and toss them outside. When done, the nest cavity will have a single entrance, and be as deep as 10 to 24 inches. The entrance is often on the underside of a leaning tree. Old nest cavities usually are not used for nesting again, although they may be used as future roost sites.

One year after a storm, we found a young pileated woodpecker on the ground. The aspen tree that held the nest cavity had broken in the wind – at the weakest point of the tree, which is where that big cavity was. We stuffed the baby bird's mouth with earthworms from the garden, and put a nest box with the bird up in the tree as close to the nest cavity as we could. We did not understand that these woodpeckers live primarily on carpenter ants and woodboring beetle larvae. Our box did not entice the parents to continue with their duties.

Pileated woodpeckers lay about 4 eggs, which both parents incubate and tend. The raspy voices of the baby birds sound like a beehive. For the first week, the babies are fed about every hour; thereafter it is about every two hours. After about a month the young leave the nest, not always ready to fly much. When they can fly, the young follow their folks around for several months. Sometimes the parents split up and each takes some of the babies. This species may not breed until 2 or 3 years old. Some have been known to live at least 9 years.

Pileated woodpeckers did quite poorly early in the 20<sup>th</sup> Century. They were regularly shot as food and sport. Settlement led to large declines in forested lands. Populations subsequently increased as forests reclaimed abandoned farms. Widespread death of large American elms from Dutch elm disease since the 1930s has further resulted in growth and expansion of pileated woodpecker populations. This tree death has provided increases in arthropod food resources and potential nest sites for the woodpeckers.



Lately, pileated woodpeckers have been doing well in the wet forests of the Chippewa, showing an increasing population trend since the early 1990's. There is a mix of forest ages and types on the Chippewa, including a substantial aspect of mature and older forests, which provide good habitat opportunities for this species. In our timber management, provisions are usually made for leave trees and snags in our sale units, to provide nesting and roosting components for species such as the pileated woodpecker while the forest grows up again. When storms occur, although we have a strong interest in salvaging damaged wood and providing for reforestation, not every acre of damaged wood is treated. Storms bring a variety of change, including an extra boost for woodpeckers.

On the horizon, the advent of the Emerald Ash Borer may very well provide a pulse of resources for pileated woodpeckers, as the black ash declines and dies. The bark-foraging birds like woodpeckers, nuthatches, and brown creepers will feast on the insect explosion. The increase in the availability of snags will bring an abundance of woodpeckers and other cavity-nesting wildlife, including those species dependent on the work of the largest woodpecker to create their homes.

By Kelly Barrett, Wildlife Biologist  
Chippewa National Forest