



A publication by:

# NORTHWEST WILDLIFE PRESERVATION SOCIETY

## Pileated Woodpecker

*Dryocopus pileatus*



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Pileated woodpeckers, characterized by the bright red crest of feathers atop their heads, can be found in old growth forests throughout much of North America. They build their nests in the trunks of trees by first carving out an entrance hole in the outer bark of the large, decaying trees, and using the wood chips to make the nest. Old growth areas also contain plenty of bugs, which are the bird's main food supply. Pileated woodpeckers are considered an indicator species for determining whether an area can be classified as old growth or not. Although the species is no longer endangered, its status continues to be threatened by the destruction of these forests.

### Characteristics

The latin name for the pileated woodpecker is *Dryocopus pileatus*. The word *dryo* comes from the latin word for tree, and the word *kopis* is latin for dagger; *pileatus* refers to 'capped', as both sexes can be distinguished by the brilliant red 'cap' of feathers on their heads. Other distinct markings include their black and white throat, and the white line that extends from the top of the bill, up diagonally across the face, then down the side of the neck to the top of the wing. The males also have a red patch (or 'moustache') near the bottom part of the bill, where the females have a black patch.

At an average of 33-40 cm (15-18 inches), the pileated woodpecker is about the size of a crow, and is the largest of all woodpecker species. Despite their size, they tend to be quite shy and are difficult to spot. One is more likely to locate a pileated woodpecker by its distinct call, which is a loud, low-pitched drumming sound. It is thought that hammering on the trees also acts to mark their territory – see the Cornell University Lab of Ornithology website listed in the Bibliography to listen to recordings of these sounds.

### Life Cycle

Pileated woodpeckers breeding times vary according to location; those in the southern or coastal sections of the range tend to breed around March, and those in northern areas or higher elevations will breed around May. Normally pairs will have one brood per season, where the male finds the nest site and does the majority of the building. The normal number of eggs in a clutch is 4. Incubation time is 18 days. Both parents watch the nest, but the male does more of this at night. The young are fed by regurgitation. The young birds stay with their parents for several months, where they are kept under constant supervision.

## Habitat

Pileated woodpeckers are found throughout much of North America, from northern California, through Oregon and Washington, and into central British Columbia and the Rocky mountains. They are relatively rare through central Alberta, Saskatchewan, and southern Manitoba, but become more numerous in the area around Lake Superior. Numbers are spotty towards the eastern coastal provinces, but become greater southward into the United States. The birds are most numerous throughout the southwestern United States, where their range extends west into eastern Texas and eastern North Dakota. See the United States Geological Survey website listed in the Bibliography section below for maps created from their Breeding Bird Survey and Christmas Bird Count showing current counts of Pileated Woodpeckers in North America.

Pileated woodpeckers reside primarily in old growth forests with large trees, a multi-layered canopy, large stumps and rotting fallen trees. Their nests have been found in various tree species, such as ponderosa pine, larch, hemlock, western red cedar, alder and maple trees, amongst others. Thus, it is not the type of tree or composition of tree species that is crucial to their survival, but the *structure* of the forest that develops as a forest 'becomes' old growth that makes these areas ideal nesting and foraging sites. The birds use large, partially decayed trees to build their nests, and plenty of food can be found in dense, damp understory that many old growth forests have. See the Cornell University Lab of Ornithology website and the Study of Northern Virginia Ecology website for photos of the habitat in which pileated woodpeckers thrive.

Woodpeckers build their nests by chipping out a large, rectangular entrance way, and use the chips to create a nest within a tree trunk. If the tree is already hollowed out due to decay, they only have to carve out the door, and their 'bedroom' is pretty much made already! In addition, if the cavity is deep enough to reach into the center of the tree where insect colonies live, this can serve as a nearby food source. So, the more decayed (and probably old) a tree is, the less energy the birds have to put towards nest-building, and they can put more energy into foraging and rearing their young. Insects such as carpenter ants and beetle larvae make up the bulk of the birds' diet, but they may eat other insects, fruits and nuts when available.

Often, groups of birds will share an area of about 30 trees, each with several cavities which may be at various stages of construction. One benefit to having several entrance holes is that it makes for alternative escape routes from predators. Pairs will stay in the same area until the following breeding season but will find a new nesting site which may already be partially complete from the previous season.

## Threats

We know that pileated woodpeckers thrive in old growth forests from the numerous studies that have been undertaken. For example, observations taken in northern Louisiana showed 36 pairs of birds in a 1580 hectare area of old growth, whereas there were no birds counted in the same sized area of second growth. In Oregon, there was a noted increase of nesting pairs in forests greater than 70 years of age. Foraging also was greater in riparian zones (areas of forest near to waterways) that were at least 40 years old. Humid areas support ecosystems that have higher amounts of insects and higher decay rates than dry areas, which accounts for the large population density of woodpeckers in places like the southwestern United States. See the Cornell University Lab of Ornithology website for details of this and other studies.

One reason to consider the preservation of this species is that they can help to control insect populations that could otherwise destroy too much of the forest. They also benefit other animals by leaving old nest sites for them to use as shelter. It is these types of indirect benefits that need to be considered when thinking about why it is important to preserve a particular species, because all organisms in an ecosystem are interconnected. Old growth forests specifically are habitats for hundreds of different types of organisms, so by concentrating on saving woodpecker habitat, we could really be saving an entire forest.

Although old growth areas have particular characteristics, there may still be debates as to when an area can actually be classified as old growth. Using 'indicator' species such as the pileated woodpecker is a good way of solving such problems, seeing as how it requires such habitats to thrive; in other words, if the birds are there, then it is likely to be an old growth forest. This means that there are probably many (other) reasons to consider conserving the area at risk. Specific things that should be preserved (in large, continuous portions) include snags (standing dead trees) and those large enough to be used as nesting trees. Since they often go to riparian areas to forage, and since some waterways may also be used as migration corridors between fragments of habitat, there should be an emphasis on conserving riparian landscapes as well.

It is thought that the removal of old growth forests in favor of younger forests with smaller trees is the main threat to the bird's survival; they simply cannot nest, feed, or otherwise live in the small trees or find enough food if their surroundings don't fit

the characteristics of an old growth area. However, despite all of the logging that has occurred in North America over the past 150 years, the woodpeckers are off of the endangered species list. Furthermore, numbers in the US seem to be increasing since a mid-century decline. See the Saskatchewan Interactive Forestry Ecosystems Indicator website listed in the Bibliography section below for more information on ecosystem management.

## What We Can Do To Help

Many conservation groups like the NWPS, are focusing on preserving important tracts of old growth forests, and other habitats such as riparian areas and wetlands where birds such as the pileated woodpecker thrive. Learning about these species through such groups by volunteering or taking part in activities organized by these groups is a great way to help preserve these species. Even taking a hike through the local forest or doing some gardening are great ways of observing (and therefore learning about) wildlife in your area. Other ways of helping to conserve wildlife include:

- Buying organic food whenever possible - this supports the farmers who don't use harmful pesticides and herbicides on their crops, thereby supporting healthy ecosystems for wildlife.
- Dispose of toxic substances such as antifreeze, batteries, and paint responsibly. Municipalities usually provide special disposal facilities for these types of things, as putting them down drains can be extremely toxic.
- Reuse and recycle whenever possible.

On your property specifically:

- Initiate and support restoration projects on abandoned or marginal landscapes, but make sure that the plant species used are appropriate for the chosen site. A general rule is to ensure that native species are used, as exotic species can seriously disrupt local ecosystems.
- In riparian areas, plant trees and shrubs along the banks to ensure greater streambed stability and absorb pollutants before they enter streams.
- Ensure that habitats support a variety of structures and vegetation, such as snags, fallen trees, and excess leaf litter. Building nest boxes can also encourage pileated woodpeckers to nest where natural cavities are lacking.
- Use alternatives to pesticides and herbicides whenever possible.
- Monitor species types and numbers that are occurring on your property and report them to appropriate organizations and government bodies. If you see a pileated woodpecker you may report the sighting. Data from local people is often used as an information source towards important research. It is particularly important that you report any sightings of threatened or endangered species to local authorities.

The British Columbia Wildlife and Nature website listed in the Bibliography section below has links to several resources offering information on specific ways to improve wildlife habitat on your property.

## Other Interesting Facts

- There is one 'famous' pileated woodpecker - the cartoon character Woody Woodpecker.
- It is thought that nesting sites are often chosen based specifically on their relative insulation value. For instance, they are often found on the underside of leaning trees, which act to shelter them from the elements and keep warm air from escaping out the entrance.
- Sometimes the woodpecker creates such a commotion while feeding that it attracts other woodpeckers, along with birds such as house wrens, to come and feed where it is feeding.

## Bibliography

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<http://www.britishcolumbia.com/Wildlife/wildlife/information/What%20you%20can%20do.htm>