



# Wildlife Trees

## A Lynn Canyon Ecology Centre Information Sheet

*Dying and dead trees are called Wildlife Trees in recognition of their value to birds and other creatures.*

### Wildlife Trees

People often think of standing dying and dead trees as dangerous eye sores. However, biologists call these dying trees **wildlife trees** in recognition of their value to birds and other creatures. Wildlife trees play an important role in the complex webs of life that make up forest ecosystems. Many different types of organisms, from fungi to mammals, use wildlife trees for habitat. In the temperate rainforest, wildlife trees are especially important along river banks and riparian zones where they provide animals with food, cover, nesting, and perching sites. Wildlife trees that fall into streams break up water flow and provide shelter, spawning and rearing habitat for fish and other aquatic species.

### Decay - It's Not A Bad Thing

Trees rarely die of old age. Lightning strikes, fires, fungal infections, lack of light, poor growing conditions and insect attacks all cause trees to die. The decay of a wildlife tree may start from the centre of the tree or from the outside in the bark. These different types of decay provide many opportunities for wildlife. Trees that are rotten in the centre can be hollowed out and used for nesting. Peeling, rotting bark provides shelter and food for many animals. As wildlife trees rot they become smaller. Branches and bits of the trunk break off the tree and fall to the ground where they nourish the soil and help prevent erosion. Wildlife trees become softer as fungi, bacteria, and wood boring insects eat and break down the wood. How quickly a tree decomposes depends on the type of tree, its size and the climate. Larger trees usually take longer to fully decompose and therefore provide habitat for wildlife over a longer period of time.

### Downed Wood

When a wildlife tree eventually falls to the ground, it continues to contribute to the health of the forest. Biologists call logs the hot spots of the forest because they are so important to biological diversity.

Like wildlife trees, logs provide shelter, food and denning sites for invertebrates, amphibians, reptiles, birds and mammals. They also act as nurseries for plants, giving them a nutrient-rich base in which to take root. Most hemlock trees in the temperate rainforest grow from downed logs.

### Stages of Decay



1. Tree is alive but unhealthy. The top has broken off.



2. Tree is dead. Branches are falling off and the bark is peeling.



3. Tree is decaying. Fungi, bacteria and insects are softening the heartwood.



4. Tree has crumbled away to a short stump.

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### **Wildlife Trees - Animal Hotels**

As a wildlife tree passes through different stages of decay, from a standing snag to soft woody debris on the forest floor, a variety of plants and animals make use of it.

#### *Primary Cavity Excavators*

Birds like woodpeckers, nuthatches, and chickadees are primary excavators. These birds drill large holes called cavities into wildlife trees to make nesting sites or search for food. Once the birds have finished with the holes, other animals move in.



#### *Secondary Cavity Users*

The birds and mammals that don't make their own holes but move into existing ones are the secondary cavity users. This group includes some species of owls, swallows, bluebirds and ducks, as well as mammals like marten, raccoons, squirrels and mice.



#### *Open Nesters*

Perfect nesting conditions are created for large birds when trees are broken or topped by lightning strikes or strong winds. Bald eagles, ospreys, large hawks and some species of owls make open nests at the tops of wildlife trees.

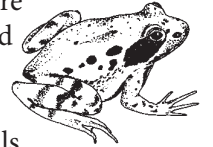
### *Mammals*

A huge variety of mammals use wildlife trees. Bats roost and rear their young under loose bark or inside hollow trees. Black bears dig for ants and grubs in soft stumps or hollow out the base of a rotten tree to create a winter den. Squirrels hibernate in holes created by woodpeckers.



### *Amphibians*

Decaying wildlife trees and logs are like sponges that soak up and hold large amounts of moisture. The wet wood is vital to frogs and salamanders because these animals breathe and absorb moisture through their skin.



### *Invertebrates and Fungi*

Wood boring invertebrates chew into wood. The insects carry wood-eating bacteria and fungal spores into wildlife trees as they create their tunnels. The bacteria and fungi release enzymes that soften and break down the tough wood fiber so that they can absorb the nutrients from it.



### *Plants*

As wildlife trees decompose and fall to the ground to become woody debris, they provide nutrients to the soil and surrounding plant communities.

