

# Green Timbers Heritage Society

## What happens to blown-over trees?

by Peter Maarsman

During the winter and spring, there have been a lot of strong winds which have blown over more trees. I get asked all the time, “What happens to these fallen trees?”



Surrey Parks crews take some away to be milled to build bridges and other park facilities, while the majority of the downed trees play a major part of reforestation of the forest. In the past, foresters viewed downed wood as wasteful debris, a hindrance to planting new trees, a fire hazard, and a shelter for pests. As we understand more about ecosystem processes, we are discovering that downed wood is valuable to long-term site productivity and that it provides key habitats for many plants and animals.

On Land, downed wood has many roles...A **source of food and energy**. Wood-boring insects such as beetles and termites are first to penetrate wood. The tunnels they create open the way to invasion by bacteria and fungi that feed on the wood leading to its decay and the recycling of nutrients. In turn, the bacteria and fungi become part of a food web of many other creatures.



### As a source of shelter:

As well as being a source of food and energy, downed wood may be a safe place to

hide from predators, or to breed, or to shelter from heat, cold and storms. Because decaying logs are like sponges, holding lots of moisture, they are vital to the survival of amphibians like wood frogs, which breathe through moist skin surfaces. Loose bark and

cracks in decaying wood are safe hiding places for salamanders, skinks (look it up), shrews and moles. Hollow logs provide shelter for bears, raccoons, weasels, hares and wood rats. Amphibians, snakes, voles and mice burrow into well-rotted disintegrating logs to nest or hide. Logs provide safe cover and breeding sites for deer, porcupines, weasels.

**Growing sites:** Fallen logs are also excellent nurseries for plants. “Nurse logs” can provide greater warmth, longer snow-free periods, less competition from other plants, moisture and nutrients. In some forests, western hemlock grows almost exclusively on nurse logs. Soil and other organic matter that tend to gather uphill behind fallen logs also create rich, sheltered growing sites.

**Enriching and stabilizing the soil:** Downed wood is a “savings account” of nutrients, which are recycled back into the soil. Fallen logs also stabilize soil and reduce erosion by wind, rain and melting snow.

**Other Roles:** Downed wood also provides places for squirrels to cache food; lookout posts for squirrels, grouse and songbirds; drumming sites for grouse; preening sites for birds; places for turtles and other reptiles to sun; runways under the snow for mice and voles.



**In Streams**, downed wood is important for providing habitat. Large logs help stabilize stream channels and create a series of pools. Harlequin ducks use streamside logs for breeding sites. Amphibians and fish use logs in the stream for cover. Insects and algae that live in these logs become food for many water-dwelling creatures.

That is my answer. When a tree dies its use continues. **As wood decays it continues to play an essential role in many different ecosystems** – in forests, in estuaries and in the ocean. As they decay, fallen trees, broken branches, slabs of bark and upturned roots provide food, shelter, create growing sites for plants and fungi, enrich and stabilize soils and contribute to stream eco-systems.

**Downed wood is also a biological legacy – a link between present and future forests.** Life and death are inter-connected. After a tree falls, the downed wood left behind becomes an important habitat for the next generation.

*Would you like to help the Summer SNAP Workers in the forest? Call Ellen Edwards at 604-526-1265*