

The Value of Rotting Logs

Trees are like people. They die from diseases, infections, injuries, burns, drowning, malnutrition, and sometimes just plain old age. Walking through the woods, we see dead or dying trees of various kinds. For example, a big white oak, with its bark ripped from crown to root, was literally cooked by a bolt of lightning during a summer thunderstorm. In a grove of black oaks, many are dying lingering deaths from infected wounds started years ago when an autumn fire swept through the fallen leaves and scorched the living wood. In a dense forest, there are many that have lost the battle for space and sunlight. In some places, we see trees that are slowly starving because dashing rains have carried away the fertile topsoil and the trampling feet of picnickers have injured the shallow roots that bring them food.

At the paved public walkway at the State Wildlife Center at French Creek, and at a few other areas where the public may congregate, we remove dead trees. But elsewhere we let them stand until they fall and then rot where they lie. A lot of people think that is both untidy and wasteful but there is an important reason for it. In order to restore or maintain a healthy natural woodland, those slowly decaying trunks, branches and twigs are vital elements of the ecosystem. It would be an unnatural, strange forest without them.

A forest is more than trees. The trees are the framework, but around them is woven an unbelievably complex fabric of life: squirrels, mice, birds, bees, beetles, worms, wildflowers, weeds, mushrooms and many other living and nonliving components. Over a period of years, a slowly enlarging hole in a standing dead snag, for instance, may be occupied in turn by a fungus, a boring beetle, a colony of carpenter ants, a woodpecker, a deer mouse, a squirrel, a screech owl, and a raccoon. The dead roots,



Steve Shaluta/IWW Dept. of Commerce Photo

The cycle of life continues as decaying trees form new soil from which they originally grew.

the loosening bark and the softening trunk also shelter or feed a host of other wood colonists. The roots gradually weaken until one day, in a gust of wind, the snag crashes to the ground where the final act of the drama takes place.

Some fallen trees rot much more rapidly than others, depending upon the kind of tree and whether or not it lies in contact with damp soil. Bacteria and the root-like threads of fungi – the fruits of which are mushrooms – spread inward through pores and crevices in the dead wood, eating away some of it and leaving the remainder soft. The mushroom growths on the outside of the rotting log may include several sizes, shapes and colors: bracket types, puffballs, parasols, and some resembling a turkey gobbler's tail, oyster shells, or crusts.

There is little hint of the wealth of small animal life within until you pull off a big piece of loose bark. Ants, centipedes, millipedes, daddy longlegs and beetles scurry away. On the exposed wood are artistic patterns

made by the engraver beetle. A fiery red mite may creep under a shred of bark. Soon no visible sign of life is left except tunnels into the softened wood and perhaps a silk-covered ball of spider eggs hidden in a crack.

Now roll the log over. On the moist underside there are likely to be sow bugs, slugs, snails, earthworms, spiders, crickets, firefly larvae and various beetles. There may be a salamander or two, a toad, a harmless snake and a mouse's nest with her store of seeds. To maintain the environment these organisms need to survive, be sure to roll the log back in place. Living and dying, generation after generation of them convert that wood back into soil food and humus, which a healthy forest must have.

There is drama and treasure in a rotting log.

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