

Value of Fallen Wood to a Healthy Environment

Coarse woody debris (CWD) is a term used for fallen dead trees. A dead standing tree is known as a **snag**. Up to 40% of all forest-dwelling animals are dependent on CWD. Colonizing organisms that live on the remains of dead trees aid decomposition and themselves become food for predators, and so continue the chain of life in the forest.

CWD decomposition recycles nutrients that are essential for living organisms, including carbon, nitrogen, [potassium](#) and phosphorus. Certain fungi, bacteria and insects consume dead wood, releasing nutrients by converting them into other forms of organic matter that are then consumed by other organisms.

Stormwater and carbon sequestration - Trees store atmospheric carbon in their wood using photosynthesis. Once the trees die, fungi and other organisms transfer some of the carbon from CWD into the soil. Soil carbon sequestered in this way can last for hundreds of years. CWD stabilizes soils by slowing downslope movement of organic matter and mineral soil, slows [evaporation](#) of soil moisture, and provides damp microhabitats for moisture-loving organisms.

Habitat for plants and animals - Some plants grow out of or against large fragments of CWD; down woody material that provides such habitat are called nurse logs. Nurse logs can provide shade, support, and nutrients to seedlings. Animals dependent on CWD and snags for habitat include salamanders, birds and small mammals. One third of all woodland birds live in the cavities of dead tree trunks. Woodpeckers, tufted titmice, Carolina chickadees, owls and some bats live in dead trees. CWD in streams provides shelter for [fish](#), amphibians and mammals. However, large log jams can cause stream bank erosion and should be reduced in size to restore normal stream flow.