



## Snags & Logs

As you drive along Skyline Drive, gaze out from one of the roadside overlooks, or hike one of the many scenic trails in the park, you may notice a lot of standing dead trees, "snags," and fallen trees, "logs." These snags and logs are the skeletons of trees that have died due to natural factors. Hurricanes, ice storms, and high winds are all natural sources of forest change and contribute to biological diversity. Pine mortality can be attributed to natural fluctuations in the populations of the southern pine beetle, a native insect. Forests full of dead trees may look messy and unattractive, but death is a natural part of all ecosystems and the dead trees are an extremely valuable resource for other members of the forest community.

A high volume of dead trees is a windfall for wildlife species dependent upon snags and logs for shelter and a meal. Woodpeckers, raccoons, owls, squirrels, and others use cavities in snags for homes and for raising their young. Black bears create dens for themselves in large logs to survive the winter months. The insects and fungi in decaying wood are an abundant food source for woodpeckers, bears, and other opportunistic hunters. These insects and fungi also speed the decay of logs and help facilitate the return of nutrients from the wood back into the forest system.

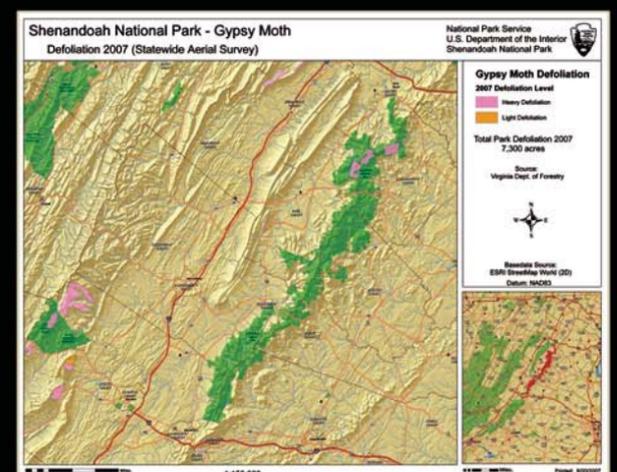
As the snags and logs rot away, their stored nutrients return to the soil and are taken up by the next generation of trees growing up quickly to fill the gap left by the dead tree.

However, numerous oak snags and logs are the result of an infestation of the non-native gypsy moth caterpillar and hemlock trees have recently been killed by the invasive hemlock woolly adelgid. Tree death caused by non-native insects and disease, air pollution, and global climate change is not welcome. Non-native insects and disease can cause widespread damage that stimulates the invasion of other non-native species and sometimes causes total loss of native species, thus altering natural conditions and systems. Park scientists work to better understand these disturbances and control them.

**YOU CAN HELP** by taking precautions against spreading non-native species and reducing air pollution emissions generated by your activities.



A pileated woodpecker has made use of this dead tree.  
NPS/Nick Fisichelli



Park scientists monitor the Gypsy Moth defoliation in Shenandoah National Park.