From the Forester: Understanding Gypsy Moths

Drukker Scout Reservation: Camp Turrell and Camp Kluge

for Fish & Wildlife Management, Forestry, and Insect Study merit badges

Gypsy moths were introduced into the United States during the 1860's. Beginning in the mid-20th century, massive defoliations occurred, as the gypsy moth caterpillar eats oak and white pine leaves and needles, particularly chestnut oak and white oak. During mild or moderate infestations, some oaks will be completely defoliated, some oaks will be partially defoliated, and others may not be affected. During severe infestations, almost all oaks in the forest canopy, especially those at higher elevations, will be completely defoliated.

Severe gypsy moth infestations have occurred in this region during the mid-to late-1970's and during the late 1980's. Moderate gypsy moth infestation may occur during isolated years, particularly during a severe drought. A large, severe infestation has been moving southeast from the Catskill region of New York and northeastern Pennsylvania for several years.

During the late summer of 2005, the forest at the reservation was assessed to predict whether or not a severe infestation will occur during the summer of 2006. Information from the State University of New York, and from the NY Department of Environmental Conservation was used to interpret the results. On the basis of that work done by volunteers, the Council has decided to spray the reservation during May of 2006. That spraying was very successful. In February of 2007, an adjacent, unsprayed property was assessed to predict the severity of the gypsy moth problem for the summer of 2007. That assessment recorded 52 egg masses per acre, well below the 500 egg masses per acre that would predict noticeable tree defoliation. It was found that the gypsy moths in this area were largely killed off by fungus and virus prior to laying eggs. Therefore, the reservation will likely not be sprayed in 2007.

Consecutive defoliations by gypsy moth caterpillars weaken oak and white pine trees, often causing them to die from insects and fungi the trees would normally be able to fight off. If left untreated over decades, the oak-dominated forest would gradually change into a black birch and red maple dominated forest. This would have significant impacts. For example, the wildlife value of the acorns produced by oak trees are of tremendous value. In addition, oak is far more valuable as a wood than either black birch or red maple.

Impacts on camper satisfaction, aesthetics, and health and safety would be dramatically affected by consecutive severe infestations. Large numbers of caterpillars are unsightly, as are large areas of dead or defoliated trees. The sound of gypsy moth defecation is unmistakable. Finally, dead trees near campsites, cabins, and other camp infrastructure would need to be addressed by the one ranger employed by the Council, or by many volunteers for a number of years. Dangerous trees in sensitive areas would need to be felled by professional arborists.

If you are concerned about gypsy moths at Camp Turrell and Camp Kluge, or would like to thank the Council for spraying during 2006, please contact Grey Rolland, Director of Support Services, at (908) 677-1000 x13.

This brochure was written by the Northern NJ Council, BSA Conservation Committee (last updated 2/2007). For more information on conservation activities within the Council and at Council camps, visit http://www.nnjbsa-conservation.org