

Strategy for managing the West Nile virus in the Northeast Region

West Nile virus has generated much publicity since it was first identified in New York City in 1999. Although very few humans have died of the infection, apprehension about the number of people at risk—and misunderstanding about the process of transmission itself—have continued to grow. According to Wayne Millington, Integrated Pest Management Coordinator for the Northeast Region, continued education for park employees and managers, including how to identify potential vectors (carriers) and minimize human risk, have been the key to preparing for the 2001 cycle of this disease.

The virus, which can cause encephalitis (an inflammation of the brain) in humans, is spread in the



The American crow is highly susceptible to the mosquito-borne West Nile virus and is a management concern for national parks, particularly in the Northeast.

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Northeast primarily by members of a mosquito species that prefers to feed on birds. In fact, West Nile virus presents a far greater threat to specific bird populations in the Northeast Region than to humans. Although mortality has occurred in very small numbers of other bird species, the American crow, fish crow, and blue jay seem to be most susceptible. Of these three, the American crow has had the highest mortality rate. For example, in 1999 and 2000, more than 10,000 of them died from the virus. Because of this susceptibility, crows are used by most state and federal agencies as an early indicator for the movement of the virus into an area.

The risk that a mosquito carrying the virus will bite a human is extremely low in sparsely populated areas. The threat of infection is greater in cities because the density of the human population makes it more likely that the vector species will find a human rather than a bird to bite. In fact, the few human deaths that have been recorded occurred in areas where people worked or lived under very crowded conditions. For, example, a 70-year-old woman who died of the disease during 2001 lived in a county that has 1,543 people per square mile.

Preparation for the 2001 season in the Northeast Region included regional training meetings for park staff and superintendents. Information about the virus, its vectors, their habitat identification and management, and risk reduction procedures were sent to each park. Every park in the region was also encouraged to communicate with their local and state health departments, and with local or state mosquito control offices, to share information and collaborate in all regional management efforts. Parks that already have experience minimizing the threat of the West Nile virus have assisted those that trained their staff for the first time.

All resource materials compiled by Mr. Millington are available to park visitors, neighbors, and parks outside of the region. Anyone who wishes to have more specific information about the West Nile virus in the Northeast may contact Mr. Millington at (814) 863-8352.