
PREVALENCE OF WEST NILE VIRUS IN MIGRATORY BIRDS DURING SPRING AND FALL MIGRATION

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Abstract

Since the discovery of West Nile virus (WNV) in New York in 1999, this disease has spread throughout 44 of the lower 48 states and to Canada and the Caribbean and Mexico. Migrating birds are often thought of as the principle mechanism for the dissemination of this virus. We investigated the prevalence of WNV and antibodies to WNV in birds during the spring and fall migrations at 8-10 sites in the Atlantic flyway during 2001-2003 and 5 sites on the Mississippi flyway during 2002 and 2003. We obtained blood samples from 13,402 birds captured in mist-nets, representing 135 species. Seroprevalence each season was low (<5%) at most sites but was as high as 18.4% (Memphis, Tennessee; fall 2002). In the Atlantic flyway, gray catbirds (*Dumetella carolinensis*) and northern cardinals (*Cardinalis cardinalis*) were most commonly found with antibody to WNV, as well as the first and third most commonly sampled species. In the Mississippi flyway, antibody to WNV was most commonly detected in northern cardinals, the most commonly sampled species. Additionally, two birds in this flyway had detectable WNV viremias, an indigo bunting (*Passerina cyanea*) and downy woodpecker (*Picoides pubescens*). Both individuals were sampled in fall 2002 at Mark Twain National Wildlife Refuge, Illinois. No viremic birds were detected in the Atlantic flyway.