

SHORT COMMUNICATIONS

VARIATION OF WEST NILE VIRUS ANTIBODY PREVALENCE IN MIGRATING AND WINTERING HAWKS IN CENTRAL CALIFORNIA

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Abstract. To assess the extent of West Nile virus (WNV) exposure of migrating (Marin Headlands) and wintering (Central Valley) hawks in California, sera from 271 Red-tailed Hawks (*Buteo jamaicensis*), 19 Red-shouldered Hawks (*B. lineatus*), and 30 Cooper's Hawks (*Accipiter cooperii*) were tested for WNV antibodies during the winter of 2004–2005. WNV antibodies were found in 5% of migrating and 15% of wintering Red-tailed Hawks, 20% of migrating and 58% of wintering Red-shouldered Hawks, and 13% of migrating Cooper's Hawks. No individuals demonstrated visible signs of WNV illness. Red-tailed Hawks that tested positive for WNV antibodies displayed no difference from Red-tailed Hawks without WNV antibodies in weight to wing chord ratio or white blood cell counts. In the Central Valley, WNV antibodies were significantly more prevalent in Red-shouldered Hawks than in Red-tailed Hawks. Significantly more Red-tailed Hawks sampled on wintering grounds tested positive for WNV antibodies than Red-tailed Hawks sampled during migration.

Key words: antibody, arbovirus, Flavivirus, hematology, raptor, Red-tailed Hawk, West Nile virus.