Discovery of *Culex coronator* Dyar and Knab (Diptera: Culicidae) in Georgia

Several counties in Georgia have improved and/or initiated mosquito control and disease surveillance activities following the detection of WNV in GA in 2001, most with the assistance of CDC West Nile grant funds. Included in these activities are extensive adult monitoring, larval surveillance, and disease surveillance programs. Mosquito surveillance, as part of the WNV program, occurs primarily in urban areas where human cases have been found. In southern Georgia, most of the surveillance is done by the Georgia Division of Public Health and is conducted monthly when possible. Additionally in Lowndes County, weekly surveillance, supported by the county and the local Public Health office, is conducted by Dr Mark Blackmore at Valdosta State University. Both gravid and light traps are set in areas where human WNV cases have occurred or where WNV positive birds have been found. Mosquitoes collected in these traps are identified to species, pooled, and sent to the Southeastern Cooperative Wildlife Disease Study at The University of Georgia for arbovirus testing.

Prior to 2003, *Cx. coronator* had been collected in south-central, southwestern, and north-central Texas (Carpenter and LaCasse 1955; Bolling et al. 2005), southern New Mexico (Wolff et al. 1975), and southeastern Arizona (Richards et al. 1956). It was found in Pittsburg County, southeastern Oklahoma, in 2003 (Bradley 2004), and Louisiana (Hill et al. 1958; Debboun et al. 2005), Mississippi (Varnado et al. 2005; Goddard et al. 2006), and Florida in 2005 (Smith et al. 2006).

A total of 10 female *Cx. coronator* were collected from 6 different sites during routine mosquito-borne virus surveillance (Fig. 1) in Albany, Dougherty County (31°34′17″N, 84°9′43″W) on Sept 26, 2006. The mosquitoes were collected using CDC miniature light traps. They were identified from whole specimens using a key modified from "Keys to the Adult Female and Fourth Instar Larvae of the Mosquitoes of Florida" by Darsie and Morris (2000). Identification of *Cx. coronator* was confirmed by BAH and pinned voucher specimens have been deposited in the Georgia Natural History Museum, Department of Entomology, The University of Georgia, Athens. An additional 13 female *Cx. coronator* were collected from one trap site in Columbus, GA (Fig. 1) in October (Muscogee County, 32°29′N, 84°55′56″W); these were also collected from a CDC light trap. The sites in Dougherty County were in several older urban areas. The site in Muscogee County was a woodlot, also in an older neighborhood. One female *Cx. coronator* was collected in Valdosta (Lowndes County 30°52′23″N, 83°16′13″W), in extreme south-central Georgia, in October (Fig. 1). This site is in an older heavily wooded neighborhood. The three counties in Georgia where *Cx. coronator* was collected had surveillance programs for several years prior to 2006, yet no specimens were found before 2006.

In 2007, *Cx. coronator* was again collected starting in August. In Lowndes County, seven female *Cx. coronator* were collected at 3 additional sites as well as at the original 2006 site (a total of 4 locations in 2007 compared to 1 in 2006, suggesting that it is becoming established in the county). In Dougherty County, adult female *Cx. coronator* were collected
single WNV positive pool was collected in 2003 in Orange County, Texas. Previous studies have demonstrated that Cx. coronator is a competent laboratory vector of St. Louis encephalitis virus (Hammon and Reeves 1943) and this virus was detected in pools of Cx. coronator collected in the field in Trinidad (Aitken et al. 1969). Carpenter and LaCasse (1955) reported that Cx. coronator is not known as a human biter; however, Jones et al. (1977) collected specimens feeding on equines in Texas and New Mexico. Currently, there is no direct evidence to suggest that it is an important endemic maintenance vector of any arbovirus.

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LITERATURE CITED


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