

DISTRIBUTION OF *AEDES ALBOPICTUS* IN GEORGIA, USA

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ABSTRACT. A statewide survey was conducted for *Aedes albopictus* in Georgia during the summers of 1991–94. All 159 counties in Georgia were determined to be infested. *Aedes albopictus* was widely distributed throughout all ecological regions in the survey area.

In 1986, the U.S. Centers for Disease Control (CDC) conducted a survey to determine the distribution of the Asian tiger mosquito, *Aedes albopictus* (Skuse), in the United States. This survey established the presence of *Ae. albopictus* only in sites in Atlanta (Fulton Co.) and Savannah (Chatham Co.), Georgia. By the end of the 1990 collecting season, other individuals added 3 additional counties (Clarke, Clayton, and Talbot) to this species' distribution in Georgia (CDC, unpublished data).

In 1991, we initiated a statewide county survey to document the presence of *Ae. albopictus* in the remaining 154 Georgia counties. The purpose of this note is to document the findings of this survey.

Aedes albopictus adults were collected with hand-held aspirators from resting and landing/biting sites at tire retailers, auto and truck repair shops, cemeteries, parks, and roadside dumps. Only a single collection was necessary to establish the presence of *Ae. albopictus* adults for most counties. Additional sites within the few negative counties were surveyed until the county proved positive. Adult mosquitoes were identified in the field. This procedure proved to be more time efficient than larval collections. However, larvae were collected on 3 occasions when adults were not evident. These were returned to the laboratory for positive identification. Voucher specimens were placed in the entomology collection at Macon College. Results for each county were reported to the Division of Vector-Borne Infectious Diseases, CDC, at Fort Collins, Colorado.

By the end of 1994, all 159 counties in Georgia were determined to be infested with *Ae. albopictus*. Unlike the gradual southward colonization of Florida by the Asian tiger mosquito (O'Meara et al. 1993), this study found that *Ae. albopictus* had an established distribution throughout Georgia at least by 1991. Our positive findings for all counties merely report our

travel history within Georgia. Specimens of *Aedes aegypti* (Linn.) were incidentally collected with *Ae. albopictus* at sites in Bibb, Crisp, Houston, Laurens, Marion, Stewart, Webster, and Worth counties. We believe that complete infestation occurred between 1986 and 1990. The commercial movement of used tires is implicated in the movement of this species throughout the southeast (Reiter and Sprenger 1987) and is presumed by us to have contributed to the rapid dispersal of *Ae. albopictus* throughout Georgia. Burton Evans noted one or more adult *Ae. albopictus* commonly following him and entering his automobile. It is probable that adults have moved by motor vehicles and this has contributed to dispersion of the species.

We conclude that the presence of *Ae. albopictus* in all counties in Georgia and the ease of collection of this species suggest that it has an equally extensive distribution in Louisiana, Mississippi, Alabama, and South Carolina. Additional collecting in these states should verify this conclusion.

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REFERENCES CITED

- O'Meara, G. F., A. D. Gettman, L. F. Evans and G. A. Curtis. 1993. The spread of *Aedes albopictus* in Florida. *Am. Entomol.* 39:163–171.
Reiter, P. and D. Sprenger. 1987. The used tire trade: a mechanism for the worldwide dispersal of container breeding mosquitoes. *J. Am. Mosq. Control Assoc.* 3:494–501.

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