

The Occurrence of *Aedes epactius* Dyar & Knab
In Louisiana (Diptera, Culicidae)

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On June 13, 1974, 13 mosquito larvae were collected from truck tires at the port area of Morgan City, St. Mary Parish, Louisiana by personnel of the Quarantine Division, Bureau of Epidemiology, Center for Disease Control. The collection was part of a surveillance program being conducted at certain international airports and seaports to monitor the populations of *Aedes aegypti* L. and to detect introduction of exotic mosquitoes. The collections were subsequently identified by this author as *Aedes (Ochlerotatus) epactius* Dyar and Knab.

The larvae exhibited the definitive characters pointed out by Zavortink, (1972). In all specimens the siphonal hair 1 was attached within the pecten. The total number of pecten teeth ranged from 11 to 20, averaging 15, and in all but one specimen, one or two of the terminal apical teeth were more widely spaced than the others. The comb scales either exhibited subequal spinules posteriorly or some or all of the scales had a median spine twice as long as the other spinules (in 5 of 13 specimens). The total number of scales ranged from 14-21, averaging 16.8. Mesothoracic hair 1 was only moderately long, not more than 0.2 as long as mesothoracic hair 5. This set of characters is convincing evidence that the specimens are indeed *A. epactius*.

Since the literature dealing with the Louisiana mosquito fauna and the *atropalpus* complex does not report *epactius*, or its close relative *atropalpus* (Coquillett), as occurring in the State, (i.e. Carpenter and LaCasse, 1955; Johnson, 1959; King *et al.*, 1960; Carpenter, 1970; O'Meara and Craig, 1970a, 1970b; and Zavortink, 1972), it is reported here as a new state record for Louisiana.

From the distributional information presented by Zavortink (1972: 101-102), it appears that *epactius* has not been collected east of Travis County, Texas; therefore its discovery in Morgan City extends its range eastward by about 450 miles.

The species was picked up as a container breeder in truck tires at a seaport which services mainly shrimp boats and offshore oil wells and drilling operations. It is possible that *epactius* was imported to the State by ships delivering goods from within the known range of this mosquito. It remains to be seen if it is permanently established in St. Mary Parish.

Literature Cited

- Carpenter, S. J. 1970. Review of recent literature on mosquitoes of North America Suppl. 1. Calif. Vector Views 17:39-65.
- Carpenter, S. J. and W. J. LaCasse. 1955. Mosquitoes of North America (North of Mexico). Berkeley, Univ. Calif. Press, 360 pp.
- Johnson, E. B. 1959. Distribution and relative abundance of mosquito species in Louisiana. La. Mosq. Cont. Assoc. Tech. Bull. No. 1, 18 pp.
- King, W. V., G. H. Bradley, C. N. Smith and W. C. McDuffie. 1960. A handbook of mosquitoes of the Southeastern United States USDA, Agr. Handb. 173, 188 pp.
- O'Meara, G. F. and G. B. Craig, Jr. 1970a. Geographical variation in *Aedes atropalpus* (Diptera: Culicidae). Ann. Ent. Soc. Amer. 63:1392-1400.
- O'Meara, G. F. and G. B. Craig, Jr. 1970b. A new subspecies of *Aedes atropalpus* (Coquillett) from southwestern United States (Diptera: Culicidae). Proc. Ent. Soc. Wash. 72:475-479.
- Zavortink, T. J. 1972. Mosquito studies (Diptera, Culicidae) XXXVIII. The New World species formerly placed in *Aedes (Finlaya)*. Contr. Amer. Ent. Inst. 8(3): 1-206.

This review aims to describe essential oils and their constituent compounds that exhibit bioactivity against *Aedes aegypti* L. (Diptera: Culicidae) larvae, the immature stage of the primary vector of dengue. This review is based on original articles obtained by searching on major databases. Our literature review revealed that 361 essential oils from 269 plant species have been tested for their larvicidal activity. Additionally, *Culex dunni* Dyar (1918); *Aedes (Ochlerotatus) angustivittatus* Dyar and Knab (1907); and *Psorophora (Psorophora) ciliata* Fabricius (1794) are reported for the first time in Bolívar State. These three species are potential vectors of the VEE (36–38). The occurrence of *Runchomyia frontosa* Theobald in carnivorous bromeliads in Venezuela, with notes on the biology of its immature (Diptera: Culicidae, Sabethini). Wasmann J Biol (1986) 441-2:127–9. Google Scholar. *Aedes epactius* is a species of mosquito (Culicidae) native to North America. Some mosquitoes in North America, such as *Aedes albopictus* and *Aedes aegypti* have a similar scutellum pattern. Like other mosquito species, female *Aedes epactius* take bloodmeal to develop their eggs. Apart from bloodfeeding, they feed on nectar and other sweet plant juices. I live in southwestern Louisiana, where because of the abundance of water and the warm climate, mosquitoes are active year-round. All over the world, people are at risk from mosquito-borne diseases such as malaria, dengue, yellow fever, West Nile virus, and several forms of encephalitis (Gubler 1989, Monath 1989). Why do female *Aedes aegypti* (Diptera: Culicidae) feed preferentially and frequently on human blood? Journal of Medical Entomology 38 (2001), 411-422. Jeyabalan, D., N. Arul, and Thangamathi.