

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

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Aedes aegypti (Diptera: Culicidae) production from non-residential sites in the Amazonian city of Iquitos, Peru. *Annals of Tropical Medicine & Parasitology*, Vol. 100, Issue. sup1, p. 73. CrossRef. Google Scholar. Knox, Tessa B. Yen, Nguyen Thi Nam, Vu Sinh Gattton, Michelle L. Kay, Brian H. and Ryan, Peter A. 2007. Critical Evaluation of Quantitative Sampling Methods for *Aedes aegypti* (Diptera: Culicidae) Immatures in Water Storage Containers in Vietnam. *Journal of Medical Entomology*, Vol. 44, Issue. 2, p. 192. Patterns of *Aedes aegypti* (Diptera: Culicidae) Infestation and Container Productivity Measured Using Pupal and *Stegomyia* Indices in Northern Argentina. *Journal of Medical Entomology*, Vol. 46, Issue. 5, p. 1176. *Aedes aegypti* populations dwindled after the invasion of *Aedes albopictus* in the 1980s and many populations were extirpated. However, in some areas *Ae. aegypti* persisted in small populations and there are reports of recent resurgences of *Ae. aegypti* in Florida, Louisiana, Nevada and California. We assessed the population genetic structure of *Ae. aegypti* in Florida and Georgia, which has concomitant consequences related to mosquito dispersal, pesticide resistance and vectorial capacity. We collected *Ae. aegypti* across Florida and in Georgia using ovitraps. Polymorphic microsatellite markers for studies of *Aedes aegypti* (Diptera: Culicidae), the vector of dengue and yellow fever. *Mol Ecol Notes*. 2007;7:168-71. Howard, L. O., Dyar, H. G. & Knab, F. (1912-1917). The mosquitoes of North and Central America and the West Indies, Vols. 1-4. Washington, Carnegie Institute. Screening of Asteraceae (Compositae) Plant Extracts for Larvicidal Activity against *Aedes fluviatilis* (Diptera: Culicidae). *Memórias do Instituto Oswaldo Cruz*, Vol. 92, Issue. 4, p. 565. Mitochondrial markers for molecular identification of *Aedes* mosquitoes (Diptera: Culicidae) involved in transmission of arboviral disease in West Africa. *J. Med. Entomol.* 42, 19-28. doi: 10.1603/0022-2585(2005)042[0019:mmfmio]2.0.co;2. CrossRef Full Text | Google Scholar. Cova-Garcia, P., Sutil, E., and Rausseo, J. A. (1966). Mosquitos (Culicinos) de Venezuela: Tomo I and Tomo II. A review on the ecological determinants of *Aedes aegypti* (Diptera: Culicidae) vectorial capacity. *Oecol. Austr.* 14:726-736 doi: 10.4257/oeco.2010.1403.08. CrossRef Full Text | Google Scholar. Garcia-Rejon, J. E., Ulloa-Garcia, A., Cigarroa-Toledo, N., Pech-May, A., Machain-Williams, C., Cetina-Trejo, R. C., et al.