

Project Title: Arbovirus mosquito surveillance program in Taiwan (the 3<sup>rd</sup> year)  
Project Number: DOH96-DC-2008  
Executing Institute: Centers for Disease Control, Taiwan  
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Abstract:

This project was using flavivirus and  $\alpha$  virus group primers to detect the mosquito infections in Taiwan areas. Of 5,563 mosquito pools detected, 10 pools and 1 pool were positive for flavivirus and  $\alpha$  virus groups, respectively. Later, 6 pools were confirmed for Japanese encephalitis and 1 pool for dengue virus. The minimum infection rate per 1000 females of *Culex tritaeniorhynchus* was 0.11% and 0.68% in 2006 and 2007, respectively. The minimum infection rate per 1000 females of *Aedes aegypti* was 0.14%. In this survey, downdraft UD light traps with dry ice attracted more mosquitoes than updraft UD light traps, gravid traps and CDC light traps. The 6 positive mosquito pools were collected from UD light traps. Our conclusions for this year were (1) In Taiwan, using PCR method with group primers, routinely, could screen mosquitoes. Furthermore, new mosquito-borne viruses into Taiwan can also be monitored. (2) UD light traps with dry ice was an effective survey tool to attract mosquitoes in Taiwan, and June is the epidemic month for Japanese encephalitis in Taipei area.

Keywords: Mosquito infection, *Culex tritaeniorhynchus*, *Mansonia uniformis*,  
Japanese encephalitis