



## MOSQUITO DIVERSITY AND CURRENT STATUS OF MATERNAL MALARIA IN OSOGBO METROPOLIS, OSUN STATE, NIGERIA

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### ABSTRACT

Mosquitoes of Osogbo Metropolis, Osun, Nigeria were sampled using the Centre for Disease Control light trap (model 512) while maternal malaria in the area was investigated using standard parasitological techniques. A total number of 16, 617 mosquitoes representing five genera *Aedes*, *Anopheles*, *Culex*, *Eretmaphodites* and *Mansonia* were captured and identified in the study using identification keys and Polymerase Chain Reaction. The incriminated 12 species in decreasing order of abundance were *Mansonia africana* 4,851 (29.19%), *Anopheles gambiae* 3,204 (19.28%), *Mansonia uniformis* 3,008 (18.10%), *Anopheles funestus* 1,922 (11.57%), *Anopheles moucheti* 1,102 (6.63%), *Culex pipiens quiquefasciatus* 805 (4.84%), *Anopheles nili* 707 (4.25%), *Eretmaphodites chrysogaster* 702 (4.22%), *Culex annulioris* 214 (1.29%), *Anopheles rhodesiensis* 45 (0.27%), *Aedes aegypti* 38 (0.23%) and *Anopheles squamosus* 19 (0.11%). Investigations on maternal malaria showed high prevalence rate (68.92%) while parasite isolation progressively decreased (from > 5 months) with advancing age of pregnancy. Infection rate did not vary significantly ( $P > 0.05$ ) with the age of the woman, but pregnant women (aged  $\geq 40$  years) were most infected. Consistent use of insecticide-treated mosquito bed nets significantly reduced Plasmodium infection ( $P < 0.05$ ). Incriminated mosquito species suggest possibilities of serious public health problems in the area. Although *Plasmodium malariae* (0.89%) was implicated in the study, but Plasmodium falciparum was the predominant (99.1%) species in the area and this has implications for maternal complications in the area. Based on the outcome of the study, consistent use of treated bed nets as a preventative measure against maternal malaria is recommended.

**Keywords:** Mosquitoes, complications, bed nets.