

Morphotaxonomic studies on *Simulium damnosum* Theobald complex (Diptera: Simuliidae) along Osun River, Southwestern Nigeria

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Abstract: *Simulium damnosum* sensu lato is a complex made up of many sibling species which differ in their ecology and contribution to onchocerciasis transmission. The present study was carried out to provide information on morphological composition of the biting adults of *S. damnosum* s. l. along Osun River in a forest zone of Southwestern Nigeria. Adult flies were collected on human baits from 07:00 a. m. to 06:00 p. m. every fortnight at three communities, Osun Eleja, Osun Ogbere and Osun Budepo along Osun River from February 2008 to June 2009. The wing tufts and other taxonomic characters of the flies were observed and classified using standard protocol. The results revealed the sympatric existence of both forest and savanna dwelling flies. The forest flies constituted the predominant species representing 99.18% of the flies caught in the three locations while savanna dwelling flies recorded 0.82% of the total catch. The difference in abundance of the forest and savanna flies was statistically significant ($P < 0.05$). All the savanna flies encountered had pale wing tufts but there was significant difference in wing tufts colours observed among the forest flies ($P < 0.05$). Further studies are therefore recommended so as to shed light on the species composition of *S. damnosum* s. l. in the study area.

Key words: *Simulium damnosum* s. l.; morphotaxonomy; wing tufts; dominant species; Nigeria