

NEW SURVEILLANCE TECHNIQUES TO CONTROL *CULEX* SP. (CULICIDAE) IN SÃO PAULO WITH LESS IMPACT TO ENVIRONMENT AND MAN

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This present study focused on the Municipal Program of *Culex* Control at the Pinheiros River and the new methods used for surveillance and control of this mosquito. This river has 54 km of banks and its polluted and stagnant water allows great proliferation of *Culex quinquefasciatus*. This mosquito is a public health issue as it may carry filarial worms and arbovirus. Moreover, its bites can irritate and cause dermatitis. The difficulty to control the infestation in an extended breeding place, by chemical disinfectant pulverization, led to new application technologies and more effective products with less environmental impact. The objective was to reduce the nuisance, reduce the risk of disease transmission to the population and to diminish employee and environmental contamination. Monthly, *Culex* sp. specific biological larvicide (*Bacillus sphaericus*) was applied using aeroboats. Environmental management was improved with increased removal of garbage and aquatic and bank flora. Weekly infestation monitoring was performed to verify the results. Use of aeroboats increased the total area of work to 50km/day, while land pulverization yielded only 2km/day. Local population requests reduced from 3291 in 2004 to 1861 in 2009. Prioritized environment management, combined with the use of biological larvicide and aeroboats, resulted in increased agility and effectiveness on reducing infestation and decreasing employee and environment contamination.

Key Words Biological larvicide, aeroboats, *Culex quinquefasciatus*, integrated management, occupational safety.