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ACKNOWLEDGEMENTS

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A GENETICAL STUDY OF SOME MORPHOLOGICAL MUTANTS

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A B S T R A C T

1. An attempt was made to obtain morphological mutants of Culex pipiens fatigans Wiedemann, the mosquito vector of filariasis, both from wild type populations and from treated and untreated laboratory inbred colonies. There seems to be some controversy with regard to nomenclature, some authors claiming that the name Culex fatigans is synonymous with many others and that the first named is Culex (Culex) pipiens quinquefasciatus Say (1823), but I have used the name Culex pipiens fatigans throughout my thesis. Spontaneously occurring mutants were isolated from two sets of mosquitoes:
 - (a) from wild mosquitoes collected from Batsalana and Bugegoda and then inbreeding them for three generations, and
 - (b) from two laboratory maintained colonies, one maintained in the lab at room temperature and the other 24°C - 25°C (Air conditioned room).
2. In the case of collections from the wild, a female mosquito that had taken a blood meal was collected fortnightly from a house at about 7 a.m. The F₁ generation was observed from larval to adult stages. Ten F₁ females were intercrossed to F₁ males of the same egg raft in ten separate cages. After mating for seven days, the females were starved and a blood meal was given. Ten egg rafts, one from each female was collected separately and the hatchabilities were recorded. The larval to adult stages were observed. The F₂ adults emerging from each such egg raft were then allowed to intercross and their F₃ progeny was very carefully observed from larval to adult stages for morphological and colour deviants after the hatchabilities had been recorded.

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