Revised morphological identification key to the larval anopheline (Diptera: Culicidae) of Sri Lanka

Nayana Gunathilaka¹, Thilan Fernando¹, Menaka Hapugoda¹, Wimaladharma Abeyewickreme², Rajitha Wickremasinghe³

¹Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya, Sri Lanka
²Department of Parasitology, Faculty of Medicine, University of Kelaniya, Sri Lanka
³Department of Public Health, Faculty of Medicine, University of Kelaniya, Sri Lanka

PEER REVIEW
Peer reviewer
Dr. Diawo Diallo, Medical Entomology Unit, Institut Pasteur de Dakar, 36 Av. Pasteur Dakar, B.P. 220, Dakar, Senegal.
Tel: 221 775410076
E-mail: diawod@yahoo.com

Comments
This study is very important because the identification of mosquito species is always the first step in all surveillance and control of malaria strategies. It describes an updated and easy way to use illustrated key that will be useful for Sri Lankan malaria control personnel and researchers interested in local anopheline fauna.

ABSTRACT
Objective: To revise morphological identification keys to the anophelines in Sri Lanka.
Method: Samples were collected from selected entomological sites in different districts in the country. Stage III and IV larvae were identified under a light microscope with an objective (x 40) using standard larval keys developed for Sri Lankan anophelines. Key larval characters were recorded for each species based on original observations and previous usage in literature.
Results: This manuscript describes an illustrated key for the identification of 22 of 23 mosquitoes which are currently recognized as local anopheline species in Sri Lanka, as a guide to workers engaged in malaria surveillance and control in the country.
Conclusions: Revised morphological keys to the larval of these species may be helpful in easy and accurate identification at the field level.

KEYWORDS
Anopheline, Immature, Mosquitoes, Control, Keys