OMICS Group Conferences
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International Symposia on
Entomology

September 04, 2013 Holiday Inn Orlando International Airport, Orlando, FL, USA

The Bionomics of *Anopheles Merus* (Diptera: culicidae) Along the Kenyan Coast

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Background: *Anopheles merus*, a sibling species of the *Anopheles gambiae* complex occurs along the East African coast but its biology and role in malaria transmission in this region is poorly understood. We evaluated the blood feeding pattern and the role of this species in malaria transmission in Malindi district, Coastal Kenya.

Methods: Adult mosquitoes were collected indoors by CDC light traps and Pyrethrum Spray Catch and outdoors by CDC light traps. *Anopheles* females were identified to species by morphological characteristics and sibling species of *An. gambiae* complex distinguished by rDNA polymerase chain reaction (PCR). Screening for host blood meal sources and presence or absence of *Plasmodium falciparum* circumsporozoite proteins was achieved by Enzyme Linked Immunosorbent Assays (ELISA).

Results: *Anopheles merus* comprised 77.8% of the 387 *Anopheles gambiae s.l* adults that were collected. Other sibling species of *Anopheles gambiae s.l* identified in the study site included *An. arabiensis* (3.6%), and *An. gambiae s.s.* (8%). The human blood index for *An. merus* was 0.12, while the sporozoite rate was 0.3%.

Conclusion: These findings suggest that *An. merus* can play a minor role in malaria transmission along the Kenyan Coast and should be a target for vector control which in turn could be applied in designing and implementing mosquito control programmes targeting marsh-breeding mosquitoes; with the ultimate goal being to reduce the transmission of malaria associated with these vectors.

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