Joshua Bast's scientific contributions

Publications (4)

Article: Comparative efficacy of existing surveillance tools for Aedes aegypti in Western Kenya

Sancto Yalwala · Jeffrey Clark · David Oullo · Daniel Ngonga · Joshua Bast

Abstract: All traditional surveillance techniques for Aedes aegypti have been developed for the cosmopolitan domestic subspecies Ae. aegypti aegypti, and not the sylvatic subspecies, Ae. aegypti formosus. The predominant form in Western Kenya is Ae. aegypti formosus that is rarely associated with human habitations but is linked to transmission of sylvatic dengue virus strains. We compared five surveillance methods for their effectiveness in sampling Ae. aegypti formosus with the goal of determining a... Show More

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Article: Ticks and Tick-Borne Viruses From Livestock Hosts in Arid and Semiarid Regions of the Eastern and Northeastern Parts of Kenya

Joel Lutomiah · Lillian Musila · Albina Makio · Caroline Ochieng · Rosemary Sang

Abstract: Biodiversity and relative abundance of ticks and associated arboviruses in Garissa (northeastern) and Isiolo (eastern) provinces of Kenya were evaluated. Ticks were collected from livestock, identified to species, pooled, and processed for virus isolation. In Garissa, Rhipicephalus pulchellus Gerstacker (57.8%) and Hyalomma truncatum Koch (27.8%) were the most abundant species sampled, whereas R. pulchellus (80.4%) and Amblyomma gemma Donitz (9.6%) were the most abundant in Isiolo.... Show More

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Article: Abundance, Diversity, and Distribution of Mosquito Vectors in Selected Ecological Regions of Kenya: Public Health Implications

Joel Lutomiah · Joshua Bast · Jeffrey Clark · Jason Richardson · Rosemary Sang

Abstract: The diversity of mosquito arbovirus vectors was investigated to define regional risk of arbovirus transmission in Kenya. Mosquitoes were sampled between April, 2007 and December, 2010 at thirteen sites across seven administrative provinces and ecological zones. CDC light traps were used to collect mosquitoes while human-landing collection was conducted in five of the sites to target day-feeding Aedes (Stegomyia) species. Over 524,000 mosquitoes were collected and identified into 101 species,... Show More

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Article: Mosquito-borne arbovirus surveillance at selected sites in diverse ecological zones of Kenya; 2007 – 2012

Caroline Ochieng · Joel Lutomiah · Albina Makio · Hellen Koka · Rosemary Sang

Abstract: Background Increased frequency of arbovirus outbreaks in East Africa necessitated the determination of distribution of risk by entomologic arbovirus surveillance. A systematic vector surveillance programme spanning 5 years and covering 11 sites representing seven of the eight provinces in Kenya and located in diverse ecological zones was carried out. Methods Mosquitoes were sampled bi-annually during the wet seasons and screened for arboviruses. Mosquitoes were identified to species, pooled... Show More

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It has been established that the main breeding sites of sylvatic forms of Ae. aegypti-especially, the predominant sub-species formosus-is in forest tree holes, in both West Africa (Sylla et al. 2013) and East Africa (Yalwala et al. 2015). Sampling of these natural water containers for infected eggs and larvae should be the main collecting strategy, although this could be supplemented by the use of artificial containers (**Yalwala et al. 2015**). *Other breeding sites-such as fruit husks-have also been identified (Sylla et al. 2013); offering another sampling niche.*

See in context

Entomopathogenic fungi and their potential for the management of Aedes aegypti (Diptera: Culicidae) in the Americas

[Show abstract]

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Harry C. Evans Simon Luke Elliot Robert Weingart Barreto

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