

Update Mosquito Species Composition and Distribution in Qatar

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Abstract : Qatar as the one of Middle East and Gulf country is growing rapidly due to urbanization. Urbanization, population's movement and goods transportation in addition to climatic change all together create suitable environments for remerging and/or introduction of new disease vectors species. Unfortunately, knowledge on mosquito species composition and their geographical distribution in Qatar is extremely limited. The objective of present study is to provide update information on species composition and distribution. Mosquito larval survey carried out in six sentinel sites in Qatar. The collection was made on monthly basis in period from October 2013 to May 2015 using dipping techniques and identified to species level using appropriate pictorial keys. In total about 3,085 mosquito larvae were collected and identified to species comprising three mosquito genera, Culex 87.4% (n=2697), Ochlerotatus 9.9% (n= 305) and Anopheles 2.6% (n= 81). Among Culex genera; Culex quinquefasciatus represent 87.8% (n= 2369), Cx. pipiens 8.7% (n=237), and Cx. mattinglyi 3.4% (n=91). Culex quinquefasciatus was the most commonly collected species, representing 93.5% in Alwakra (n= 2216) which was observed in November, December, March, April and May when reached the peak. 6.4% in Nuaija (n= 151) was found in February and March and reached the peak in March. 0.1% in Alkaraana (n=2) only observed in April. Cx. pipiens was observed 50.2% in Rwdat Alfaras (n=120) and 48.9% in Hazm Almurkhiya (n=117). While in Rowdat Alfaras it was observed in Oct-May and in Hazm Almurkhiya from Oct-April. Cx. mattinglyi (n= 91) was only found in Nuaija from October to December. Ochlerotatus genera account 1 species Oc. dorsalis (n=305). The majority of Oc. dorsalis were observed in March and May, 98% in Nuaija (n= 299), followed by 2% in Alkhor (n=6) which was observed in January and February. Anopheles was only represented by An. stephensi which was found 69% in Alwakra (n= 56) in November, December, April and May, while 25.9% in Hazm Almurkhiya (n=21) and found in May and November. 6.2% in Rwdat Alfaras and was observed only in November and 1.2% in Nuaija (n=1) and observed in October. Further investigation is required on the composition and distribution of mosquito for implementing a surveillance program and control of mosquito-borne diseases in Qatar.

Keywords : composition, distribution, mosquito, Qatar

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