

عنوان مقاله:

Molecular Analysis of ITS₂ Fragment among Anopheles maculipennis Species Complex, West Azerbaijan Province, Iran

محل انتشار:

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خلاصه مقاله:

Background: Anopheles maculipennis complex species is considered as one of the most important species complexes with ۱۲ species and significant role in the transmission of important diseases such as malaria, lymphatic filariasis and multiple Arboviral infections. The aim of the present study was to analyze Internal Transcribed Spacer (ITS) ۲ fragment among Anopheles maculipennis species complex in West Azerbaijan Province, Iran and also to identify different species of An. maculipennis using ITS₂ fragment. Methods: Adult and larval specimens of different mosquitoes' species were collected from the northern, southern and central parts of West Azerbaijan Province. Adult mosquitoes were collected using standard methods of indoor and outdoor hand catch, human and animal bait and light traps. Also larvae were caught using dipping method during May- Sep ۲۰۱۶. After DNA extraction, ITS₂ fragment was amplified and analyzed using Bioinformatics tools. Results: Totally, ۲۷۱ specimens belonged to Genus Anopheles [۱۵۸ samples of An. maculipennis (adult: ۵۰, Larvae: ۵۷), ۱۰۱ An. claviger (adult: ۲۱, larvae: ۸۰) and ۱۲ specimen of An. superpictus (adult: ۳, larvae: ۹)] were collected from different parts of the province. Also, the presence of at least two species of Anopheles maculipennis species complex (An. maculipennis and An. Persiensis) was concluded. Conclusion: Based on the reported differences between these species, accurate identification of these species in terms of their ecology, vectorial capacity and their insecticide resistance profile is recommended. Also, other molecular markers such as COI,

.should be examined for better resolution of species composition in *An. maculipennis*

کلمات کلیدی:

Molecular marker, ITS₂, Arboviruses, Malaria, *Anopheles maculipennis*

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