

## **Vectorial Capacity and Age Determination of Anopheles Maculipinnis S. L. (Diptera: Culicidae), in Esfahan and Chahar Mahal and Bakhtiari Provinces, Central Iran**

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**Abstract :** The objective was to determine the population dynamics of *Anopheles maculipinnis* s.l. in relation to probable malaria transmission. The study was carried out in three villages in Isfahan and Chaharmahal Bakhtiari provinces of Iran, from April to March 2014. Mosquitoes were collected by Total catch, Human and Animal bait collection. *An. maculipinnis* play as a dominant vector with exophagic and endophilic behavior. Ovary dissection revealed four dilatations indicate at least 9% of the population can reach to the dangerous age to potentially malaria transmission. Two peaks of blood feeding were observed, 9.00-10.00 P.M, and the 12.00-00.01 A.M. The gonotrophic cycle, survival rate, life expectancy of the species was 4, 0.82 and five days, respectively. Vectorial capacity was measured as 0.028. In conclusion, moderate climatic conditions support the persistence, density and longevity of *An. maculipinnis* s.l. could result in more significant malaria transmission.

**Keywords :** age determination, *Anopheles maculipinnis*, center of Iran, Malaria

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