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Bacterial Flora of the Anopheles Fluviatilis S. L. in an Endemic Malaria Area in Southeastern Iran for Candidate Paraterasgenesis Strains

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Abstract: Malaria is an infectious disease and considered most important health problems in the southeast of Iran. Iran is elimination malaria phase and new tool need to vector control. Paraterasgenesis is a new way to cut of life cycle of the malaria parasite. In this study, the microflora of the surface and gut of various stages of Anopheles fluviatilis James as one of the important malaria vector was studied using biochemical and molecular techniques during 2013-2014. Twelve bacteria species were found including; Providencia rettgeri, Morganella morganii, Enterobacter aerogenes, Pseudomonas oryzihabitans, Citrobacter braakii Citrobacter freundii Aeromonas hydrophila Klebsiella oxytoca, Citrobacter koseri, Serratia fonticola Enterobacter sakazakii and Yersinia pseudotuberculosis. The species of Alcaligenes faecalis, Providencia vermicola and Enterobacter hormaechei were identified in various stages of the vector and confirmed by biochemical and molecular techniques. We found Providencia rettgeri proper candidate for paratransgenesis.

Keywords: Anopheles fluviatilis, bacteria, malaria, Paraterasgenesis, Southern Iran

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