An inventory of Culicidae diversity in Haryana state

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A total number of 21 mosquito species referable to five genera Anopheles Meigen, Aedes Meigen, Mansonia Blanchard, Armigeres Theobald and Culex Linnaeus have been reported from Haryana state. A list of these species along with material examined has been included in this paper. Three species have been reported for the first time from this state.

During the last seven decades, unplanned growth in the form of urbanisation, excessive deforestation, insecticide and pesticide hazards, construction of dams, development of new agro-ecosystems, etc. have resulted in the insurgence and resurgence of various vectors and vector borne diseases. The development of resistance in various mosquito species warrants that this group of insects need an extraordinary and immediate attention. Surprisingly no mosquito survey was carried out in Haryana state, since the publication of monographs on Anophelinae1 and Culicinae2. Due to non-availability of data on vectors in last seven decades, the effective malaria control programme in this state was greatly hampered. In view of the above, collection surveys have been carried out to collect mosquito species during 1997–2000. As many as 580 specimens of mosquitoes belonging to 21 species referable to five genera have been collected, preserved and identified.

The immature as well as mature mosquito specimens have been collected from the cattleshed, human dwellings, water pools, ponds, rivulets, tree holes and domestic containers. The immature stages have been reared up to the emergence of adults. Adult specimens were killed with ethyl acetate vapours.

The freshly killed specimens were pinned, preserved in air tight insect cabinets and were identified with the help of keys given by Christophers1, Barraud2, Puri3, and Wattal and Kalra4.

Order DIPTERA
Family CULICIDAE

4. Anopheles (Cellia) stephensi Liston : Material examined from Hissar—14 April 1998, 1♀; Kurukshetra, Indira Nagar—1 September 1998,
4♀♀; Raogarh—2 September 1998, 2♀♀; Bhiwani, Amar Nagar—15 September 1999, 3♀♀; Rohtak, Gaddi—16 April 1999, 2♀♀; Kalka, Bitan—26 May 1999, 1♀.

5. *Anopheles (Cellia) pulcherrimus* Theobald: Material examined from Kurukshetra, Raogarh—1 September 1998, 1♀; Regional Engineering College—1 September 1998, 1♀; Rohtak, Asthal Bohr—16 April 1999, 3♀♀; Chandi—16 April 1999, 3♀♀; Bhiwani, Amar Nagar—18 April 1999, 2♂♂.


1998, 1♀, 1♂; Raogarh—2 September 1998, 1♀; Rohtak, Tilyar lake—15 April 1999, 2♂♂; Gaddi—15 April 1999, 26♀♀, 18♂♂; Asthal Bohr—16 April 1999, 14♀♀, 2♂♂; Sundarpur—17 April 1999, 4♀♀, 1♂; Chandi—17 April 1999, 2♀♀; Bhiwani—18 April 1999, 9♀♀, 9♂♂; Ghikara—19 April 1999, 26♀♀, 5♂♂; Charkhi Dadri—19 April 1999, 7♀♀, 1♂; Sahubas—19 April 1999, 3♀♀, 1♂; Kalka, Bitan—26 May 1999, 18♀♀, 6♂♂; Layughat—26 May 1999, 1♀; Koti—27 May 1999, 4♀♀, 2♂♂.


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**References**

2. Barraud PJ. *The fauna of British India, including Ceylon and Burma* v V. London: Taylor and Francis 1934; p. 1–463.