

MOSQUITOES (DIPTERA: CULICIDAE) IN LOWLAND URBAN ENVIRONMENTS IN THE CZECH REPUBLIC

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Mosquito species composition based on massive collections of mosquito larvae and adults in three major mosquito regions located in Central Bohemia and in the South and Central Moravia in last 10 years is presented. More than 60,000 specimens of larvae or adults were collected and determined in the Labe — Lowland (Central Bohemia) and Lower Morava and Dyje river basins (South Moravia), both in the towns, villages, and in their close vicinity. The occurrence of 28 mosquito species was recorded: *Anopheles maculipennis* s.l., *An. claviger*, *An. plumbeus*, *Ochlerotatus cantans*, *Oc. annulipes*, *Oc. excrucians*, *Oc. flavescens*, *Oc. intrudens*, *Oc. cataphylla*, *Oc. leucomelas*, *Oc. communis*, *Oc. punctor*, *Oc. caspius*, *Oc. dorsalis*, *Oc. sticticus*, *Oc. refiki*, *Oc. geniculatus*, *Aedes vexans*, *Ae. cinereus*, *Ae. rossicus*, *Ae. geminus*, *Culex pipiens*, *Cx. torrentium*, *Cx. territans*, *Cx. modestus*, *Culiseta annulata*, *Cs. morsitans*, and *Coquillettidia richiardii*.

Out of those 28 species only *Culex pipiens*, (including *Cx. molestus* bioform), *Culiseta annulata*, and *Anopheles maculipennis (messeae)* frequently breed (or hibernate) in the urban environment. From the other species, only *Oc. sticticus*, *Aedes vexans*, *Ae. cinereus*, *Oc. caspius* and *Oc. cataphylla* invade human settlements, especially after late spring or summer floods. After the floods in summer of 1997 and 2002 and in the spring 2006 landing rates often exceeded 100 on human body per minute in the centres of affected (by the flood) towns or villages.

For the first time, development of flood water mosquitoes *Oc. sticticus* and *Ae. vexans* together with snow melt mosquitoes *Oc. cantans* and *Oc. cataphylla* were recorded in the March and April in the Labe — Lowland (N 50°17-22'). Changes in the seasonal occurrence and abundance of other species of the areas under study will be presented. In January 2007, hibernating larvae of *Cs. annulata* were caught in the Neratovice (Central Bohemia), the phenomenon has been observed in the Czech Republic for the first time.