

Symposium “Medical entomology 2”

(62) Structuration of tsetse (Diptera: Glossinidae) metapopulations according to landscape fragmentation in Burkina Faso

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The impact of landscape fragmentation due to human and climatic pressures on the structure of a metapopulation of *Glossina palpalis gambiensis* (Diptera: Glossinidae) was analysed in the Mouhoun river basin, Burkina Faso. Allele frequencies at eight microsatellite loci, and morphometric features based on 11 wing landmarks, were compared among four populations. The populations originated from the Mouhoun river and one of its tributaries. The among-populations distances were 74, 61 and 81km upstream to downstream, totalizing 216km between the first and the fourth. Both microsatellites and wing geometry demonstrated a structuration between the populations, but no isolation. There was no clear relation between gene flow and geographic distance. Nevertheless, the type of gallery forest and particularly their disturbance level assessed using phytosociological censuses, seemed to be of tricking importance. The impact of the fragmentation of peri-riverine landscapes on tsetse metapopulations structure and its potential implications for control campaigns is discussed.

(63) The potential use of temperate chimeric phages in arthropod vectored disease control.

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