

Diversity and Bioecology of Culicidae (Diptera; Nematocera) of Medical and Veterinary Interest in the Wetlands of Northern Central Algeria

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Abstract:

Context and objective: with the aim of understanding the ecological role played by mosquitoes, assessing the health risks associated with the diseases they transmit, and developing sustainable management strategies, this study examines the biodiversity of the aquatic entomofauna of the Culicidae in the Réghaia Marsh, conducted from March to June 2019. Three stations were studied: the lake shore, the scrubland, and the stagnant water pools.

Methodology: Sampling of the pre-imaginal stages of Culicidae was carried out using the dipping method, which consists of collecting larvae weekly from different locations in the habitat using a 1.5-litre ladle, without repetition.

Results: Fourteen species belonging to two subfamilies, Anophelinae, comprising the genus Anopheles, and Culicinae, comprising the genera Aedes, Culex, Culiseta and Uranotaenia, were recorded. The use of ecological indices made it possible to determine that the Culicinae subfamily is the most dominant around the lake (70%) and in the scrubland (65%), while Anophelinae (55%) dominate in stagnant water pools.

Conclusion: The study of spatio-temporal variations in *Culex pipiens* revealed that this species develops in spring and summer and appears to be correlated with the physico-chemical parameters of its environment, in particular temperature, conductivity and dissolved oxygen.

Keywords:

Diversity, Culicidae, Wetlands, Bioecology, Algeria.