



Study of diversity and abundance of Chironomidae larvae in Sefidroud estuary (south Caspian Sea)

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Abstract

Chironomid larval play a considerable role in the organic matter processing, food chains of water communities and fish feeding. In order to diversity and distribution pattern and how their relationship with environmental conditions in Sefidroud estuary (south Caspian Sea basin) were studied. Sampling of substrate sediments was carried out bimonthly from November 2014 to September 2015, using Van Veen grab (0.03 m²). Sampling was carried out at three stations (S₁ in the river, S₂ in estuary and S₃ in the marine), with three replicates. In the present study, 11 genera belong to three subfamilies, including Chironominae (5 genera), Orthocladinae (5 genera) and Tanypodinae (1 genera) were identified. The highest average density was related to *Procladius* (300±165 ind. m⁻²) in river station in March and the lowest for *Paratendipes* (11±6 ind. m⁻²) in estuary station in September. Results of temporal distribution showed that the highest and lowest density of Chironomidae larvae were in March (149±75 ind. m⁻²) and in July (25.6±14.6 ind. m⁻²), respectively which showed significant difference (p<0.05). Spatial distribution of Chironomidae larvae among sampling stations showed significant difference (p<0.05), as river station was higher density (96.8±52.5 ind. m⁻²) than estuary station (54.6±27.8 ind. m⁻²) and marine station (0±0 ind. m⁻²). At the marine station no specimen of Chironomidae larvae was found.

Keywords: identification, density, distribution, Chironomidae, Sefidroud estuary, Caspian Sea.