

Distribution of sexual and asexual Ostracoda (Crustacea) from different altitudinal ranges in Ordu region, Turkey

Necmettin SARI, Okan KÜLKÖYLÜOĞLU, Derya AKDEMİR, Mehmet YAVUZATMACA & Ceren ALTINBAG

In order to understand the relationship between altitude and reproductive modes (a/sexual) of non-marine ostracods, 166 randomly selected sites were sampled from 11–16 July, 2010. Total of 26 species was found from 133 out of 166 sites. Except two species (*Cypridopsis vidua*, *Heterocypris incongruens*), the other 24 species were new reports for the region. Three species (*Psychrodromus olivaceus*, *H. incongruens*, and *Candona neglecta*) were occurred most frequently as 43, 46 and 76 times, respectively. Numbers of asexual species (19) were higher than the sexual (11) but there was no significant differences ($P > 0.05$) observed between the frequencies of these forms at different altitudinal ranges. Canonical correspondence analyses did not correlate species' reproductive modes to a certain environmental variables measured when four variables (Habitat type ($p = 0.014$; $F = 2.171$); Water temperature ($p = 0.018$; $F = 2.248$); pH ($p = 0.066$; $F = 1.588$); EC ($p = 0.088$; $F = 1.577$)) were effective on species. Although a small group (asexual species without swimming setae in circle) showed tendency to habitat type and electrical conductivity, such variables are believed to play secondary role on species distribution. Highest species diversity (13 species) was observed at the range of 1200 and 1400m (a.s.l.) despite the fact that numbers of station sampled was not the highest (22). Also, results yield that reproductive modes of species (sexual and asexual) were not directly correlated with altitude or the environmental variables measured during this study. However, it is believed that these factors play secondary role on structuring the habitats that suitability of habitats appears to be better explanatory factor on ostracod diversity.

Authors addresses:

Necmettin Sari & Mehmet Yavuzatmaca

Department of Biology, Faculty of Arts and Science, Abant İzzet Baysal University, Gököy 14280 Bolu, Turkey

Okan Klkylglu
Department of Biology, Faculty of Arts and Science, Abant Izzet Baysal University,
Glky 14280 Bolu, Turkey
kulkoyluoglu_o@ibu.edu.tr

Derya Akdemir
Department of Biology, Faculty of Arts and Science, Marmara University, Istanbul,
Turkey

Ceren Altinbag
Department of Biology, Faculty of Arts and Science, Sinop University, Sinop, Turkey