

Phylogeography and Evolutionary History of Whiting (*Merlangius merlangus*) along the Turkish Coastal Waters with Comparisons to the Atlantic

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Abstract : In this study, the effect of the Turkish Straits System (TSS), comprising a biogeographical boundary that forms the connection between the Mediterranean and the Black Sea, on the evolutionary history, phylogeography and intraspecific gene flow of the whiting (*Merlangius merlangus*) a demersal fish species, was investigated. For these purposes, the mitochondrial DNA (CO1, cyt-b) genes were used. In addition, genetic comparisons samples from other regions (Greece, France, Atlantic) obtained from GenBank and Barcode of Life Database were made to better understand the phylogeographic history of the species at a larger geographic scale. Within this study, high level of genetic differentiation was observed along the Turkish coastal waters based on cyt-b gene, suggesting that TSS is a barrier to dispersal. Two different sub-species were also observed based on mitochondrial DNA, one found in Turkish coastal waters and Greece (*M.m euxinus*) and other (*M.m. merlangus*) in Atlantic, France.

Keywords : genetic, phylogeography, TSS, whiting

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