

North Atlantic oscillation affects the physical condition of migrating bullet tuna *Auxis rochei* (Risso, 1810) from the Western Mediterranean Sea

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Climate oscillations exert direct control over the environment in which they occur and may influence the physical condition of migratory marine species, such as tuna, as reported by several authors. The main aim of this study was to explore the association between the potential effects of the North Atlantic Oscillation (NAO) on the fitness condition of bullet tuna (*Auxis rochei*) migrating to the Spanish Mediterranean Sea. A total of 2357 length-weight pairs of data obtained from individuals collected on the Spanish Mediterranean coast were analysed. A non-parametric Spearman test was used to investigate correlations between the atmospheric oscillation indexes and two physical condition indexes. The results suggest that, in general, positive phases of the NAO index improve the physical condition of fish migrating to spawning grounds in the Mediterranean Sea. These results could be explained by changes in the dominant winds, which could favour pre-spawning migration, and by nutrients availability, which guarantees their recovery after the spawning period. ©

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