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Ecopath Analysis of Trophic Structure in Moroccan Mediterranean Sea and Atlantic Ocean

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Abstract : The Ecopath model was utilized to evaluate the trophic structure, function, and current status of the Moroccan Mediterranean Sea ecosystem. The model incorporated 31 functional groups, including fish species, invertebrates, primary producers, and detritus. Through the analysis of trophic interactions among these groups, an average trophic transfer efficiency of 23% was found. The findings revealed that the ecosystem produced more energy than it consumed, with high respiration and consumption rates. Indicators of stability and development were low, indicating that the ecosystem is disturbed by a linear trophic structure. Additionally, keystone species were identified through the use of the keystone index and mixed trophic impact analysis, with demersal invertebrates, zooplankton, and cephalopods found to have a significant impact on other groups.

Keywords : ecopath, food web, trophic flux, Moroccan Mediterranean Sea
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