

AN ECOSYSTEM MODEL FOR THE NORTHEASTERN MEDITERRANEAN

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ABSTRACT

A steady-state ecosystem model (ECOPATH) has been applied to the northeastern Mediterranean Sea. In the study major emphasis has been given to demersal fishes, which, in the past, were the target group of the fishing fleet of the region. The model utilizes trawl survey data of biomass, catch statistics, stomach content analysis and describes biomass flows between most groups in the system.

The major finding of the study is that, *i*) Lessepsian immigrants has gained crucial significance in the ecosystem; *ii*) the pelagics like clupeids and carangids, which had no importance 2-3 decades ago and which gradually increased as a consequence of over-fishing and coastal eutrophication, are now the key species for the fishery. This is not only because their contribution to the total landings has increased, but also their role in the ecosystem as being food source became crucial.

Key Words: Ecosystem modeling, Biomass flow, Fisheries, Northeastern Mediterranean, Lessepsian species



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