

Water Masses in the Pagassitikos Gulf, Greece, in 1989

Stavros BARBETSEAS and Irene ZODIATOU

National Centre for Marine Research, Agios Kosmas - Ellinikon 16604 Athens (Greece)

Hydrographic data from four cruises in the Gulf of the Pagassitikos, during 1989, are seasonally evaluated.

A lower salinity water layer prevails at the surface all over the Pagassitikos Gulf, especially in summer, owing to the Aegean water entering the study area and the almost permanent stratification. In the surface of the Bay of Volos, the lower salinities observed at the NW part can result from the influence of the fresh water from the source "Bourboulithres" flowing into the NW end of the Bay. During August and November two water masses were observed, in the surface layer only, one in the Bay of Volos and another one in the remainder of the Gulf. However, there was only one water mass in February and May.

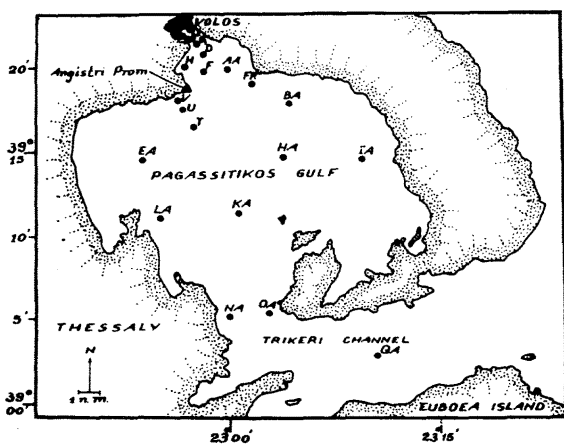


Fig.1 : The Pagassitikos Gulf, showing the positions of the hydrological stations.

At locations not deeper than 60m, the water column comprised mainly two layers, with the upper one as far down as 20m. At the deep stations (>60m), a third layer formed below 40 to 50 m. The thickness of the surface layer varied from 20 to 40m, depending on the season and the morphology. The higher temperatures and lower salinities in the surface layer were observed in August, owing to strong stratification. In Winter, the temperature dropped and the stratification became weaker, but persisted because of the halocline. However, in February, the water column was thoroughly homogeneous.

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