

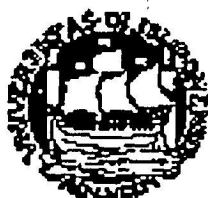
## Operational Fisheries Oceanography in the Black Sea Using Satellite Data

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The Black Sea is the largest semi enclosed anoxic basin. During 1991 the first ever multi-national cruises were conducted covering the whole basin. Their main objective is to understand the general circulation dynamics of this basin in order to assess the recent ecological changes that took place there during the last decades resulting in a severe depletion of the fish stocks.

The understanding of the space and time distribution of chemical and physical characteristics of the system has enabled us to utilize satellite data in operational support to the fisheries. The existence of warm core eddies along the Turkish coastline was identified. The downward transport of water at the centers of these quasi-permanent anticyclonic gyres results in the deepening of the CIW that is present at depths of around 50 meters. This process increases the depth of water mass above the CIW and gives a better chance of formation of bigger schools of pelagic fishes. Thus the use of satellite data can be used to define the warm core eddies where the pelagic fishes aggregate. This process was further investigated *in situ* by acoustic methods and it has been shown that these areas actually act as traps for biological material. Based on these preliminary results the operational support to fisheries has been initiated during the 1990/91 fishing season. This process is being continued during the 1991/92 fishing season as well. Real time APT IR data are marked on maps as areas favorable to pelagic fishing which are sent by fax to the ministry for further distribution among fishermen.



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