

## EUTROPHICATION IN ISKEDERUN BAY, NORTHEASTERN MEDITERRANEAN

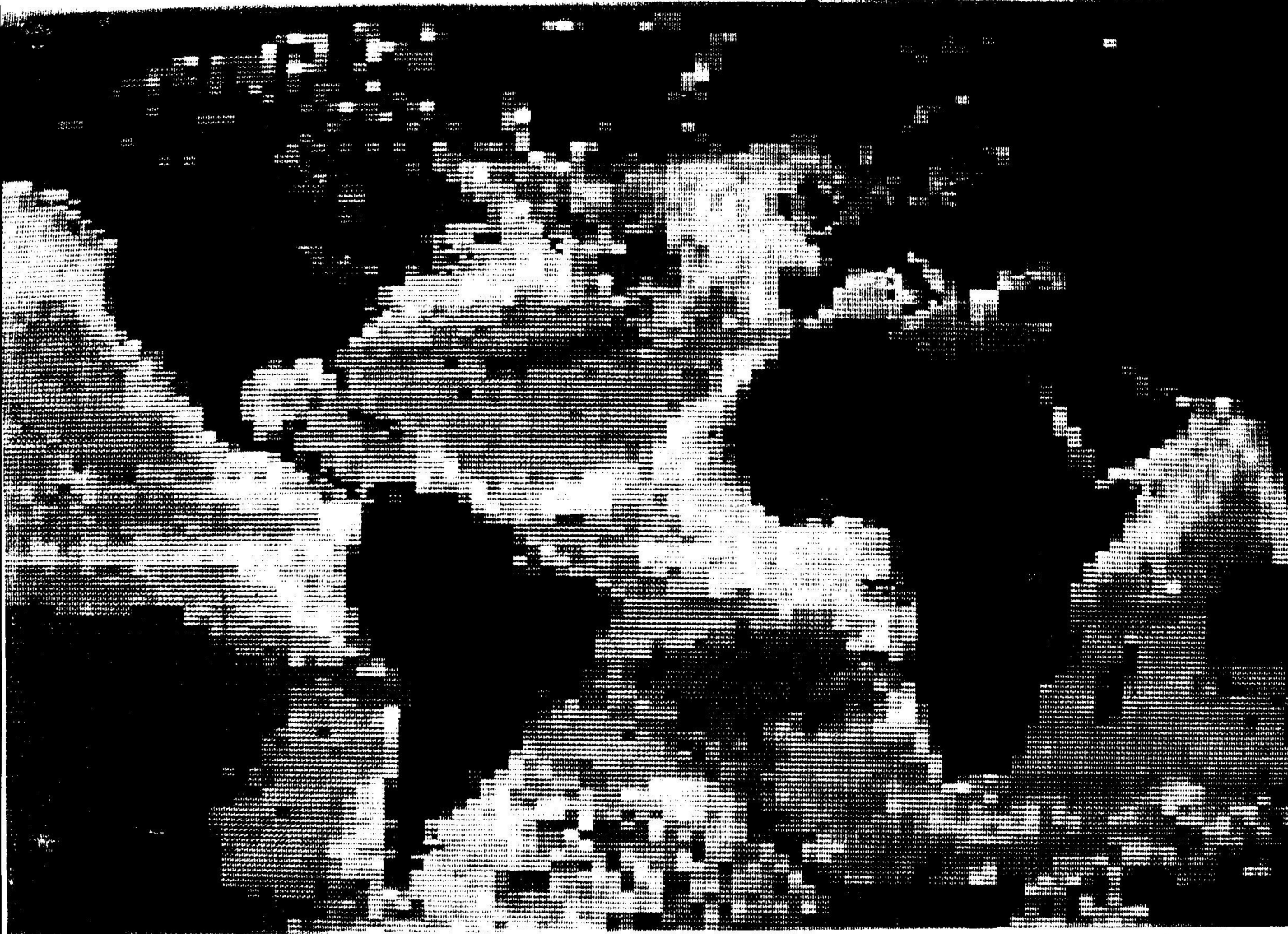
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As is well known, the Eastern Mediterranean is one of the most impoverished water bodies in the world: the level of nutrients are in the range of 0.1-0.4  $\mu\text{g-at/1}$ , 0.5-6.0  $\mu\text{g-at/1}$  and 1-9  $\mu\text{g-at/1}$  for  $\text{PO}_4\text{-P}$ ,  $(\text{NO}_3+\text{NO}_2)\text{-N}$  and reactive silicate respectively. This is reflected in the concentration of chlorophyll-a hence also in the standing crop of phytoplankton and primary productivity. The annual average of chlorophyll-a concentration is less than 0.5  $\mu\text{g/1}$  and the primary productivity has been measured as low as 25 g C/m<sup>2</sup>/y, excluding coastal areas enriched by terrestrial input. As expected total suspended particulate concentration is low, being less than 1 mg/a, so that the water is blue clear having extremely high light penetration, the average depth of %1 light transmission is about 100 m.

The Bay of Iskenderun located in the northeastern corner of Levantine Basin covers a relatively large area of continental shelf. The bay is roughly a rectangle, 60 km by 35 km, and differs from the common structure described above. The concentration of nutrients lies between 0.1-1.5, 0.5-12.0, 1-11.0 for  $\text{PO}_4\text{-P}$   $(\text{NO}_3+\text{NO}_2)\text{-N}$  and reactive silicate respectively, causing a relatively high phytoplankton population density, since chlorophyll-a concentration is between 0-6.5 mg/l and the estimated primary production in the bay is about two times higher than the offshore production in the region. The main reason for high primary production is the high terrestrial input and effective benthic-pelagic coupling of nutrients, since the average depth is around 70 m and the whole water column is illuminated. In spite of this situation, significant oxygen depletion and eutrophication does not occur in the bay because the circulation system provides an efficient exchange of oxygen rich open-sea water masses with the bay.

*Not revised by the authors*

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# MARINE COASTAL EUTROPHICATION

The response of marine  
transitional system  
to human impact:  
problems and perspectives  
for restoration

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**abstracts**



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