

THE DISTRIBUTION OF PHYTOPLANKTON IN THE SOUTHERN CASPIAN SEA

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The following investigation is a part of hydrology and hydrobiology projects of the Southern Caspian Sea. It carried out lower than 100m depth in four investigation cruises in four seasons (1996). For survey of phytoplankton in the southern Caspian Sea, the 18 transects were perpendicular on coast. Each transects related to depths such as: A=10m, B=80m, C=50m, D=100m. The Ruthner sampler was used for sampling of different layer of 0, 5, 10, 20, 50, 100m. In accordance to survey carried out in the Southern Caspian Sea, five phylum of phytoplankton identified that Chrysophyta (diatome) was maximum number and biomass in all of four seasons. The maximum and minimum biomass was 32.8mg/m³ in winter and 171.65mg/m³ in fall respectively. After Chrysophyta phylum, Pyrrophyta has a highest biomass. The minimum and maximum average of biomass in this Phylum was 4.8 mg /m³ in fall, 11.13 mg/m³ in spring season. Three Phyla such as: Cyanophyta, Cholorophyta and Euglenaphyta were very low (the annual average contain 0.6, 0.073, 0.24mg/m³ respectively). The average biomass and density in five Phyla in west, center and east areas indicated that Chrysophyta in west area is more than the two others. It is likely that entrance of fresh water to the sea and increase of essential material caused to bloom of this Phylum. Pyrrophyta phylum is almost eaully (steady) distributed in three areas and Cyanophyta phylum distributed higher in west but Cholorophyta and Euglenaphyta distributed in east coast of Caspian Sea (Iranan coastal).