

Qualitative phytoplankton distribution around Alexandria

By

Samman A. A., Halim Y., Sultan H. A.

Abstract

The phytoplankton community in Alexandria water was mainly represented by Bacillariophytes, followed by Dinoflagellate. Cyanophyta, Silicoflagellate and Ebridae were rarely recorded. Species contributing to the phytoplankton bloom were numerically restricted.

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Previous work on the phytoplankton distribution have been made by El-Maghraby & Halim (1965) and Savich (1970). The present study concerns detailed qualitative distribution of phytoplankton around Alexandria.

Sampling was carried out along a section perpendicular to the Alexandria coast at stations I, II & III situated at 4.2, 8.0 & 10.5 nautical mile. Sedimentation and net phytoplankton samples collected from September 1969 to August 1970, were qualitatively and quantitatively studied.

Diatoms (54, 48, & 41 species at stations I, II & III, respectively) represent the main bulk of the phytoplankton (88.5 -98.2%). Dinoflagellates (15, 15 & 10 species at stations I, II & III, respectively) ranked second in abundance along the whole section (1.2-4.7%). Cyanophyta (one species), Silicoflagellates (2 species) and Ebridae (one species), were rarely encountered (1.0%). The importance of Diatoms and Dinoflagellates as the main components of phytoplankton crop was previously mentioned by El-Maghraby & Halim (1965) and Savich (1970). The community was diversified but the bloom along the whole section was contributed by only few species, namely, Nitzschia longissima, Skeletonema costatum, Chaetoceros curvisetus and Chaetoceros affinis. The restricted number of dominant species during bloom period was also recorded by El-Maghraby & Halim (1965). The monthly distribution of the main diatom and dinoflagellate species and their maxima(-o-) recorded at the three station I, II & III are shown in Fig. (1).

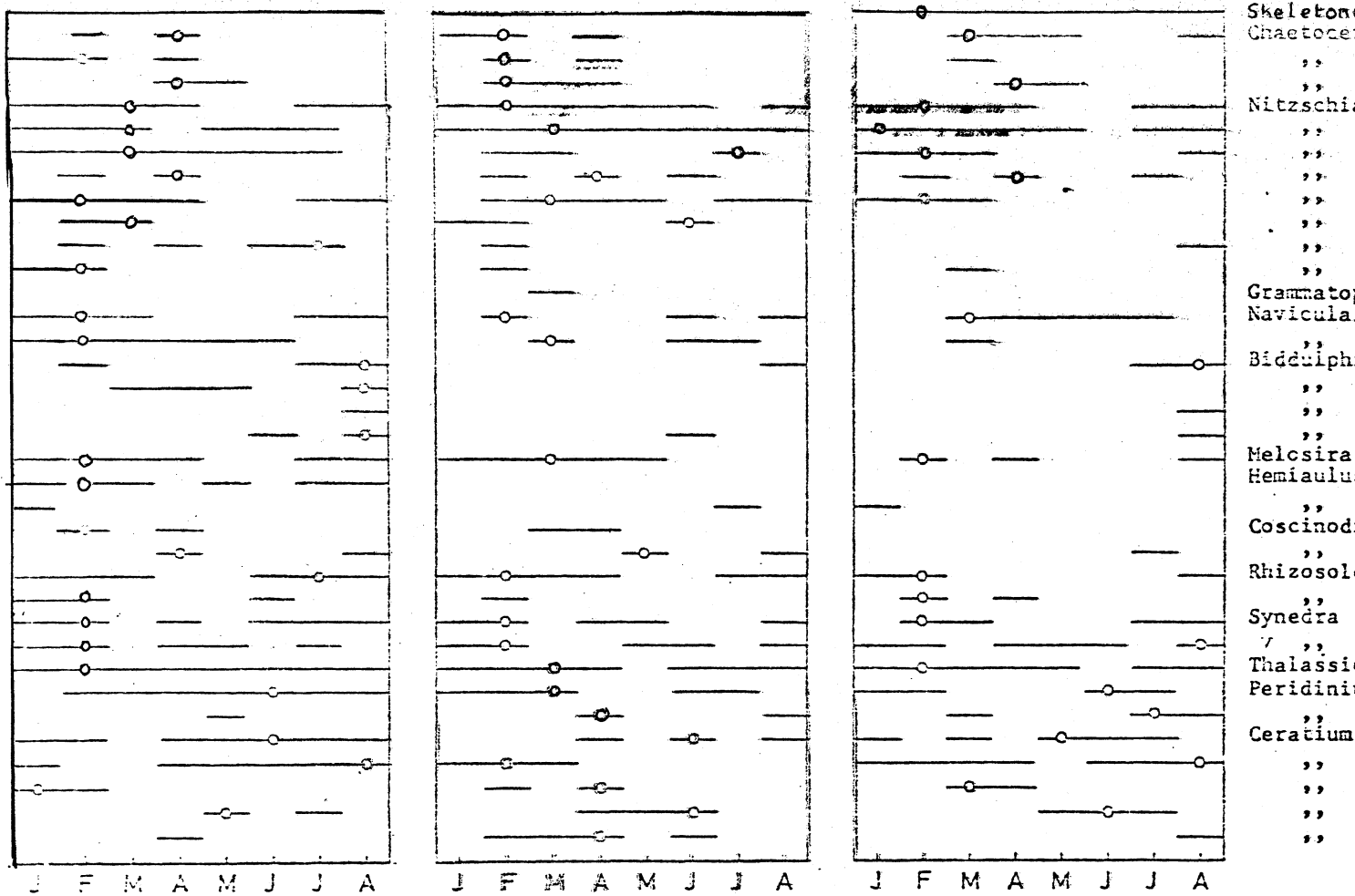


Fig. (1): The monthly distribution of the main diatom and dinoflagellate species and their maxima (—o—), in the water column (0-30) at the three stations.

Bibliography:

El-Maghraby A. M. & Y. Halim (1965). A quantitative and qualitative study of phytoplankton of Alexandria. *Hydrobiologia*, V. 25, p. 221 - 238.

Savich S. M., 1970. About the phytoplankton condition in the south east of the Mediterranean. *Azov Institute of Oceanography and Fisheries, USSR, Transaction No. 30*, p.143 -162 (In Russian)