

VERTICAL HYDROGRAPHIC SECTIONS OF THE EASTERN MEDITERRANEAN

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The vertical sections shown in the figures in this article were drawn up from the results of measurements carried out by the Station de Recherches des Pêches Maritimes à Caïffa (the Chypre-02 Project).

The sections refer to a summer period (21 July to 1 August) in 1963.

The diagram shown in figure 1 gives the respective locations of the sections.

Figures 2 and 5 show isotherms; 3 and 6 are of isohalines, 4 and 7 of isopycnic lines expressed in σ_t .

TECHNICAL DETAILS

The temperature values have not been corrected for the adiabatic effect.

The salinity of the samples was determined by chemical titration and by applying the Knudsen process.

In order to reduce the inconvenience of the intervals between two successive stations — intervals which were in some cases too marked — the respective sections were drawn up from previously prepared isoline charts for each standard depth. Then the readings carried out all along the section traversed were plotted in their vertical position. Charts were drawn up for stations near the section paths in order to insert, when possible, the magnitudes of in-station measurements on the section paths.

For the case of isotherms, measurements for depths of less than 10 metres have been omitted on the sections. This was done so as to avoid any possibility of the effects of diurnal variation. Here it should be noted that at the surface the temperatures oscillate between 27.1 °C and 29.1 °C, according to the station.

With increasing depth, beyond 500 metres the isolines for all the sections become more and more unreliable. In fact beyond this depth the number of measurements decreases constantly. Of 18 initial measurements at 500 metres only 12 remain at 700 metres, and only 6 at 900 metres.

With the decrease in the number of measurements there is a parallel increase in the choice of curves.

Moreover in such a restricted zone as the area comprised between points 7, 8 and 9 and the points 10, 11, 12 and 13 the absence of an intermediary and supplementary station is noticeable. Thus at depths above 500 metres these sections are of an interpretative nature.

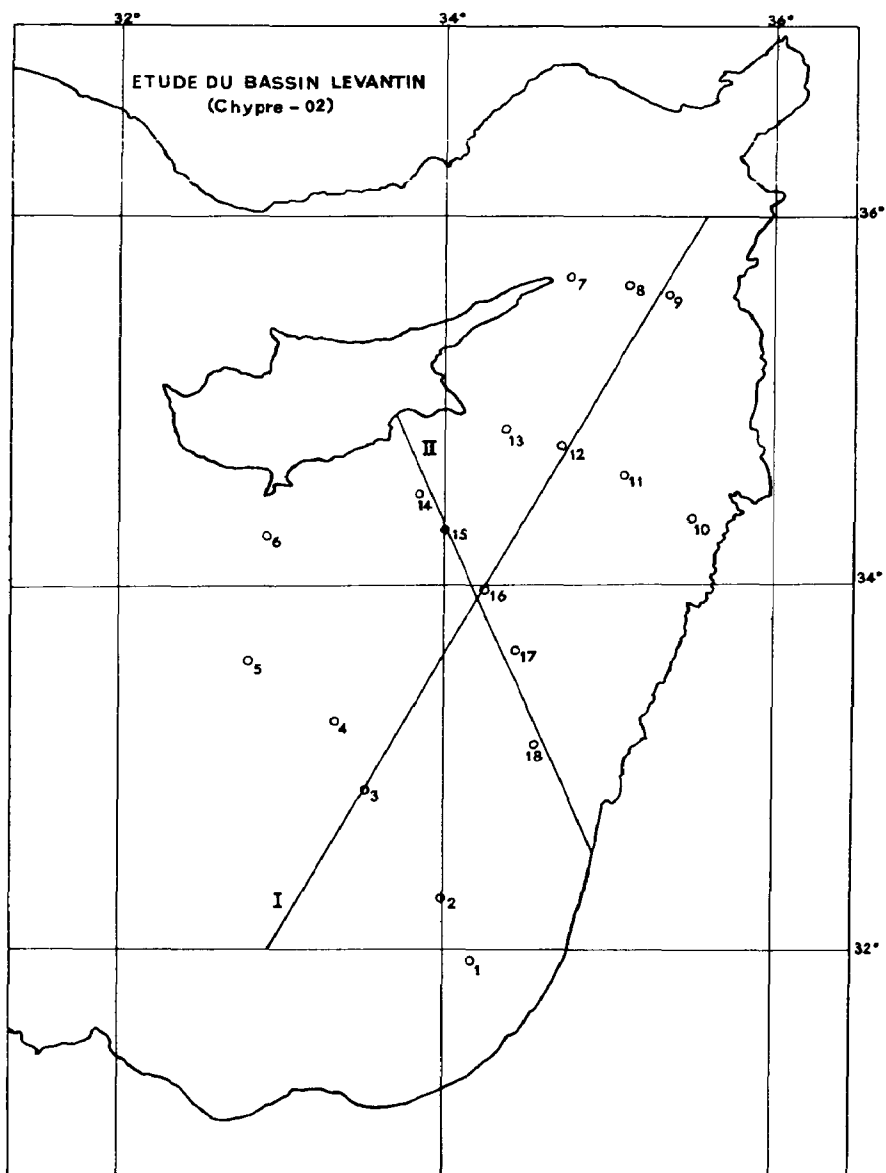


FIG. 1

STATION DE RECHERCHES DES PÊCHES MARITIMES À CAÏFFA (ISRAËL)
 ETUDE DU BASSIN LEVANTIN (CHYPRE - 02)
COUPE D'ISOTHERMES,
 Dressée par ICHSEL, Ingénieur géologue (E.A.S.A.)

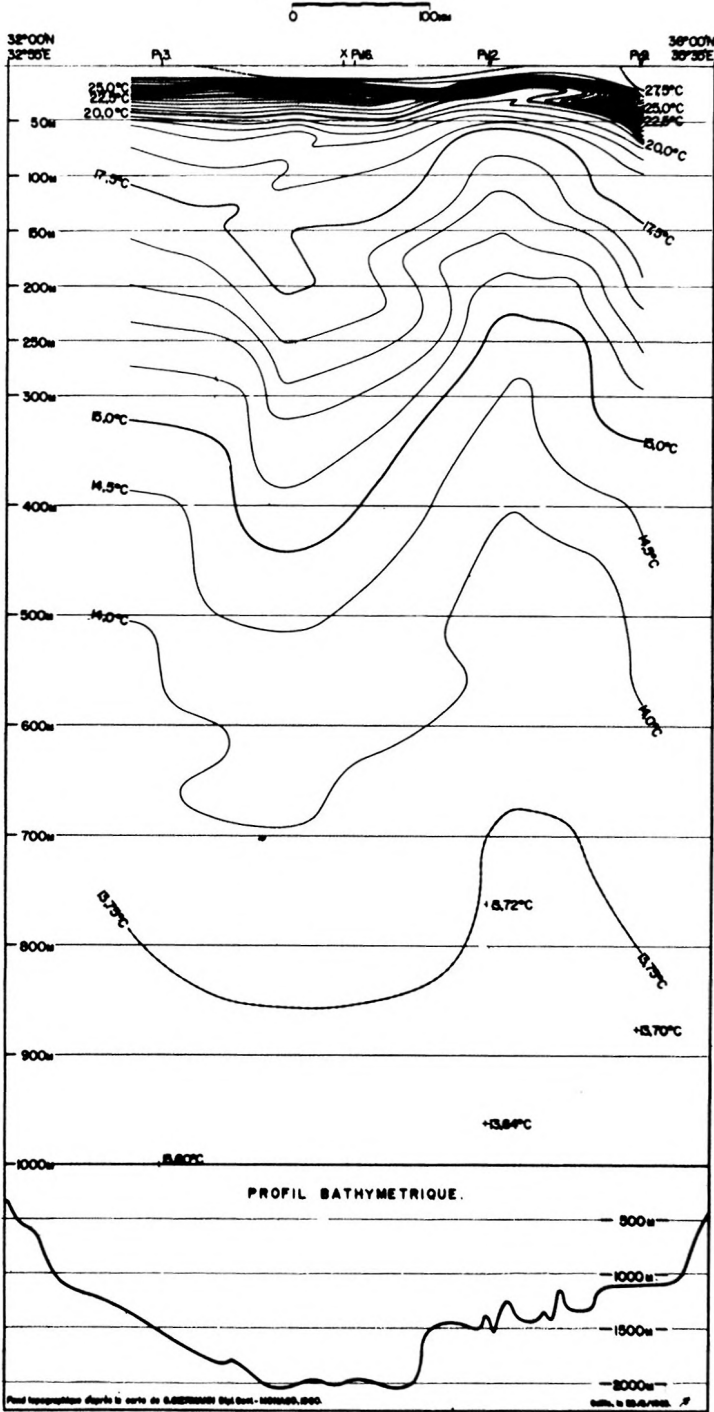


FIG. 2

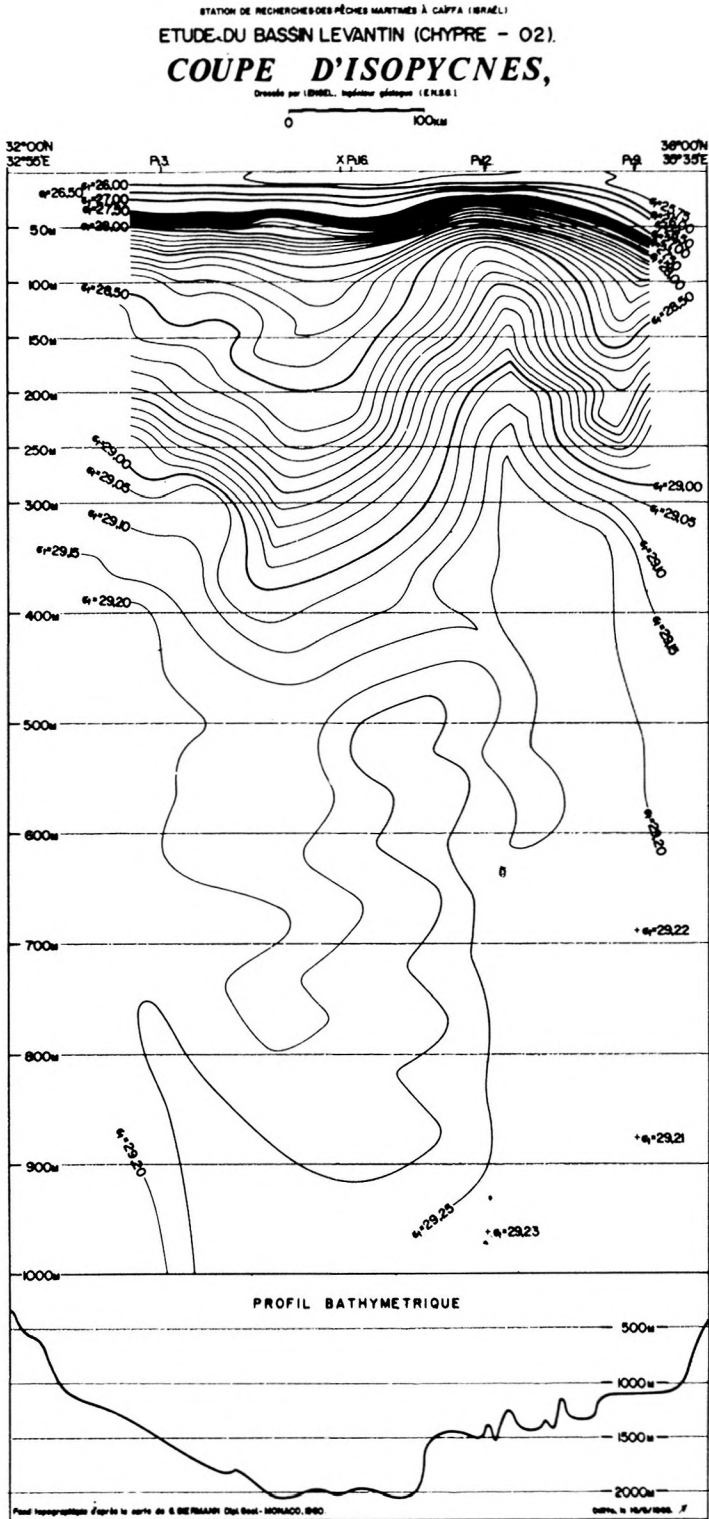


FIG. 4

STATION DE RECHERCHES DES PÊCHES MARIQUES À CAMPA (ISRAËL)
 ETUDE DU BASSIN LEVANTIN (CHYPRE - 02).
COUPE D'ISOTHERMES,
 Dressée par L. DEMEL, ingénieur géographe (I.R.S.S.)

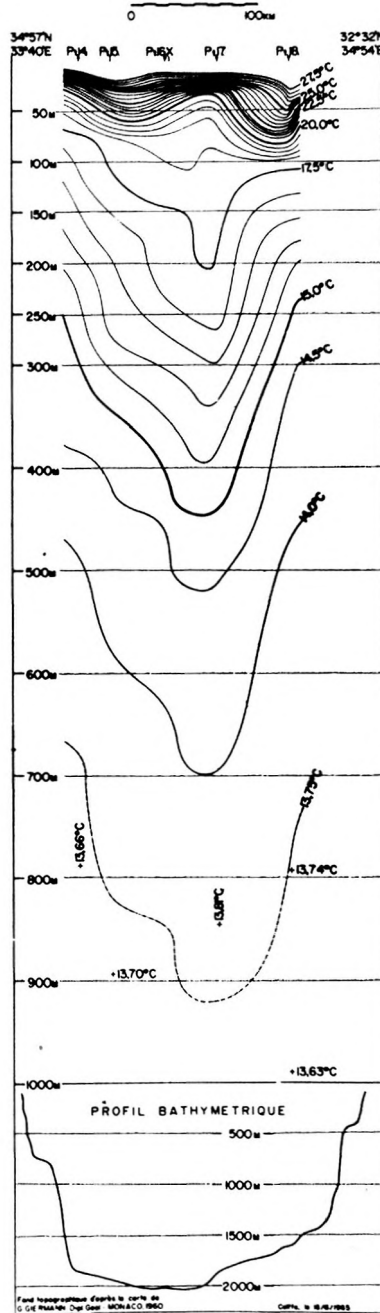


FIG. 5

STATION DE RECHERCHES DES PÊCHES MARITIMES À CAFFA (ISRAËL)
 ETUDE DU BASSIN LEVANTIN (CHYPRE - 02).
COUPE D'ISOHALINES,

Dressée par LEBRELL, Ingénieur géologue (E.A.S.E.)

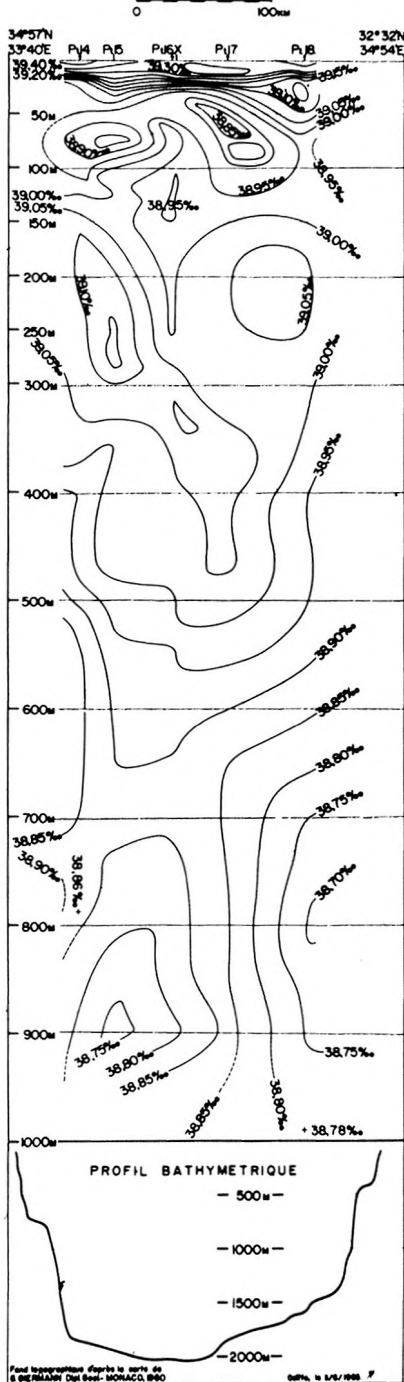


FIG. 6

STATION DE RECHERCHES Océanographiques à CAFFA (ISRAËL)
 ETUDE DU BASSIN LEVANTIN (CHYPRE - 02).
COUPE D'ISOPYCNES,
 (Géométrie par LISSSEL, Institut géologique (E.R.S.R.))

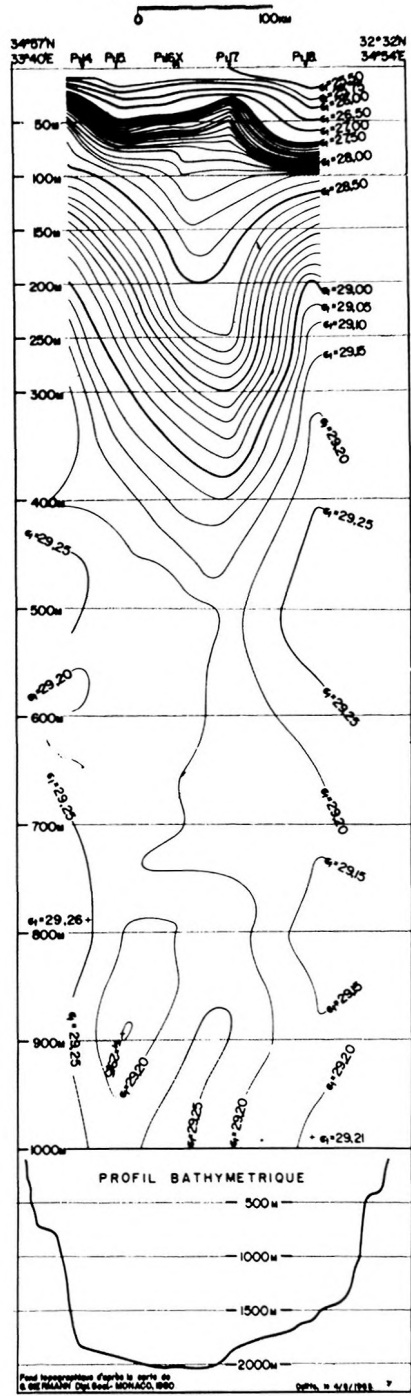


FIG. 7

REMARKS

At considerable depths the lentiform structure of salinity is reflected, and likewise the density distribution. This phenomenon of lenticularity, mentioned by OREN and ENGEL (1965) is also found again in the sections carried out by GORGY and SHAHEEN (1963) along the Egyptian coastline. At a depth of about 600 - 800 metres a lenticular formation with heavy nucleus can be noticed. It should be pointed out that this lenticular formation with heavy nucleus can also be discerned in deep water on the sections reproduced here, above all between points 12 and 9. These formations do not show up only by reason of the spacing adopted for two successive isolines.

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