

With its location at the northern edge of the Nile Delta, Lake Burullus is the central one of the Egyptian Mediterranean system of coastal lagoons. It is a rather narrow (5-17 km) body of brackish water that occupies an area of about 350 km² between Rosetta and Damietta branches of the Nile. The lake is very shallow (50-150 cm) and generally increases in depth towards the west and north. It is connected to the Mediterranean through, 200 m wide and 380 cm maximum depth, outlet known as El-Boghaz. Lake Burullus receives brackish drainage water via 6 drains (Fig. 1). The water and heat budget of the lake were studied by MAIYZA (1989) and MAIYZA *et al.* (1988 & 1991).

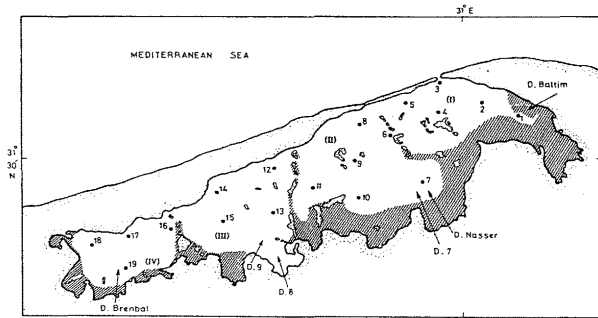


Fig. 1: Present situation of Lake Burullus
D: Drain •: Hydrographic station

Salt budget is among the fundamental items of the hydrographic regime of a coastal lake. The present study aimed to disclose the state of salt budget and its controlling factors.

Within the period April 1987-March 1988, the monthly water temperature and salinity of different drains were determined. Meanwhile the monthly discharge of drain water was afforded by the record of the General Works and Water Resources Directorate, Kafr El-Shikh Government. At Al-Boughaz, a RCM was moored monthly for about 4 days. From the records of the instrument (current, speed and direction, and water, temperature and salinity) and the crosssection of the outlet, the salt exchange were estimated. The monthly salt content in the Lake were estimated also by summation of 19 zones represented by 19 monthly hydrographic stations. The salt content of a given water body was calculated as:
salt content = water volume * density * salinity.

Table 1 shows the monthly salt balance components and the net salt balance besides the monthly salt content of Lake Burullus. The net salt gain by Lake Burullus during the period of study was 30×10^3 ton, which may be consumed by seepage, through the bottom, and/or vegetation. The main controlling factors were the wind and amount of drainage water discharged to the Lake.

Table 1. Monthly salt balance components, the net salt balance and the salt content of Lake Burullus for the period April 1987-March 1988 (in 10^3 ton)

Month	Drains	Exchange	Net	Salt content
April 1987	343.8	-264.4	79.4	1163.9
May	366.6	257.2	623.8	1814.7
June	374.4	-1799.8	-1425.4	2094.7
July	575.9	1560.8	2136.7	807.0
August	635.2	-688.0	-52.8	1124.2
September	664.1	1727.8	2391.9	1088.2
October	608.0	424.2	1032.2	1092.4
November	403.0	73.9	476.9	1076.3
December	512.3	-3286.2	-2773.9	2133.2
January 1988	433.0	-1198.1	-765.1	1224.4
February	346.8	-1647.2	-1300.4	1729.1
March	325.8	-719.1	-393.3	1920.7
Sum	5588.9	-5558.9	30.0	
Mean	465.7	-463.2	2.5	1439.1

REFERENCES

- MAIYZA I.A., BELTAGY A.I. and MAMONEY M.H., 1988.- Surface heat balance of Lake Burullus. *Rapp. Comm. int. Mer Médit.*, 31, 2.
MAIYZA I.A., 1989.- Water budget of Lake Burullus, Egypt. Accepted for publication in *J. "Estuarine, coastal and shelf sciences"*.
MAIYZA I.A., BELTAGY A.I. and MAMONEY M.H., 1991.- Heat balance of Lake Burullus. Accepted for publication in *Bull. Inst. Oceanogr. & Fish. A.R.E.*

La Sardaigne méridionale est caractérisée par la présence des salines et d'étangs très intéressants du point de vue scientifique (STEFANI, 1962; MOCCI DEMARTIS, 1973; DE MARTIS *et al.*, 1992; De MIRANDA *et al.*, 1988).

Le "Stagno di Capoterra" (fig. 1), près de Cagliari, est un étang littoral de faible profondeur (0,5 m) et d'une surface d'environ 200 ha. Elle est divisée en secteurs alimentés artificiellement en eau de mer par pompage. Actuellement il est utilisé comme bassin de présalation par une industrie du sel et pour ça la salinité est très variable pendant l'année. Même les substrats sont différents, le fond étant formé soit de terre de remblai, soit de "bentonite" et soit naturel.

Les échantillons de benthos ont été prélevés mensuellement à partir du Juillet 1988 au Juin 1989. Les taxa présents sont les suivants: *Nematoda*, *Polychaeta*, *Ostracoda*, *Copepoda*, *Amphipoda*, *Isopoda*, *Diptera* (larves), *Gasteropoda*, *Lamellibranchia*, *Platelminta* (fig. 2).

D'après les dates des analyses, on peut voir que les populations trouvées changent selon le type du fond.

- 1) Le bassin avec le fond constitué en terre de remblai est résulté plus apprécié par les Crustacés et les Lamellibranches.
- 2) Les bassins avec substrat de bentonite ne montrent pas de différences significatives dans la composition des peuplements, alors que la densité varie.
- 3) Le bassin avec fond naturel est le plus riche en taxa mais avec une densité inférieure par rapport aux autres bassins.

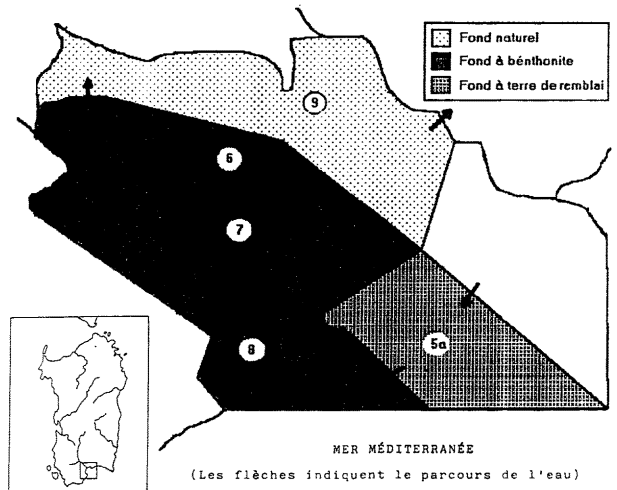


Fig. 1. Stagno di Capoterra et stations d'échantillonnage

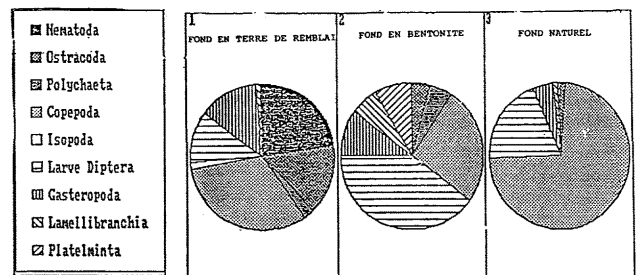


Fig. 2.

REFERENCES

- DE MARTIS B., DE MIRANDA RESTIVO M.A., MOCCI DEMARTIS A. & SERRA E., 1992.- Study of Saltwater Pond at Capoterra, Southern Sardinia: General Characteristics. *Environ Manag.* XVI, 3: 381-388.
DE MIRANDA M.A., MOCCI DEMARTIS A. & SERRA E., 1988.- Etude qualitative et quantitative des biocénoses aquatiques dans quelques milieux humides de la Sardaigne occidentale. *Actes V Conf. Int. Ecos. Méd.* Montpellier V: 305-312.
MOCCI DEMARTIS A., 1973.- Censimento invernale degli "Stagni" e nei laghi della Sardegna. *Ric. Biol. della Selvauggina.* 57: 1-50.
STEFANI R., 1962.- Sull'ecologia di *Artemia salina* nelle saline si S. Gilla di Cagliari. *Boll. Zool.* XXXII Conv. UZI: 409-415.