FORAMINIFERA OF SOME LAGOONS OF THE PO RIVER (ITALY)

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Résumé - On a conduit une étude sur les associations à Foraminifères benthoniques des lagunes du Basson et du Canarin dans la zone du Delta du Po. Dans la lagune du Basson les microfaunes sont constituées par un petit nombre d'espèces, dont Protelphidium anglicum MURRAY est largement prédominante. Dans la lagune du Canarin les microfaunes sont toujours oligotypiques, cependant les fréquences des espèces sont exposées à des variations. Après Protelphidium anglicum MURRAY, Elphidium decipiens (COSTA) Auct. est, en pourcentage, significative. Dans les mêmes lagunes, on a, de plus, exécuté des recherches sur la nature du sédiment.

Abstract - A study has been carried out about benthic foraminiferal assemblages collected in the Basson and Canarin lagoons in the Delta of the Po River. The foraminiferal assemblages of Basson lagoon are represented by many specimens belonging to a few species among which the dominant taxon is Protelphidium anglicum MURRAY. In Canarin lagoon foraminiferal assemblages are always oligotypical but frequencies of single species can change. In percentage, after Protelphidium anglicum MURRAY, the frequency of Elphidium decipiens (COSTA) Auct. is significant. Studies have been also carried out about sediment nature.

The study of benthic Foraminifera collected in the Basson and Canarin lagoons during the autumn campaign in 1975 pointed out the different frequency of species found in the lagoons (see Fig. 1).

Two samples in the Basson and six in the Canarin lagoon have been drawn and washed using a 63 μ mesh sieve. Till now it has been carried out a careful study of only three samples selected as the most significant with the aim of getting on in studying all those collected in future.

BASSON LAGOON

At station 1, depth is 1.60 m; sediment is represented by siltyclay. The Foraminiferal assemblage shows individuals with very

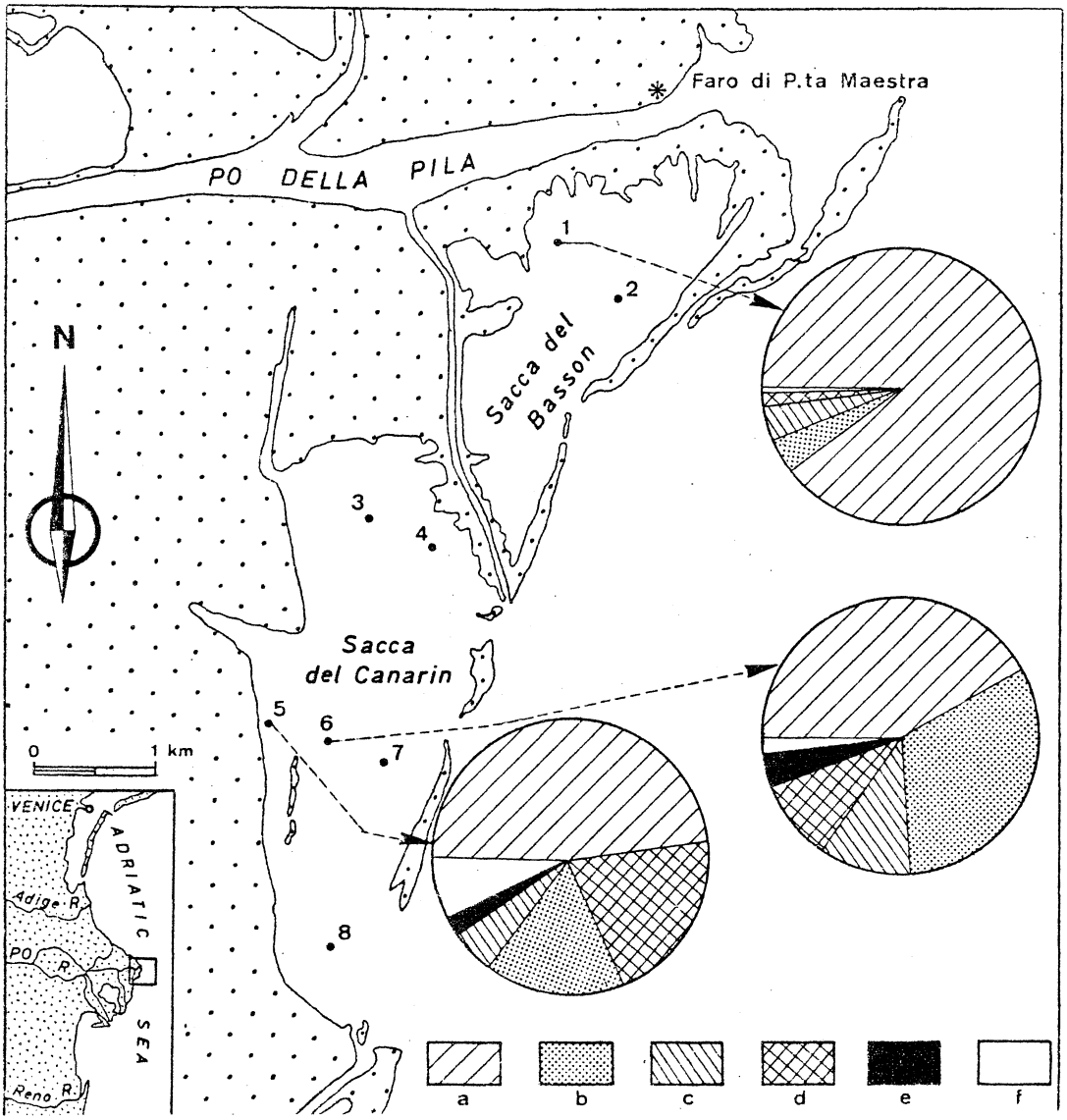

Fig. 1 - a) Protelphidium anglicum MURRAY; b) Elphidium decipiens (COSTA) Auct.; Ammonia beccarii tepida (CUSHMAN); d) Quinqueloculina seminulum (LINNE'); e) Elphidium articulatum (d'ORBIGNY); f) other species.

thin shells. In particular it is formed by Protelphidium anglicum MURRAY (88.98%) whose specific identity has been confirmed by the author himself. Elphidium decipiens (COSTA) Auct. (4.11%), Ammonia beccarii tepida (CUSHMAN) (3.97%), Quinqueloculina seminulum (LINNE') (1.81%), Elphidium incertum (WILLIAMSON) (0.49%), Elphidium articulatum (d'ORBIGNY) (0.40%), Quinqueloculina bicornis (WALKER & JACOB)

(0.14%), Miliolinella subrotunda (MONTAGU) (0.12%), Elphidium sp. MURRAY (0.12%), Reophax sp. (0.01%), follow in order of frequency.

CANARIN LAGOON

At station 6, depth is 1.80 m; sediment is represented by siltyclay. The benthic Foraminiferal assemblage is represented by individuals with very thin and sometimes small shells. Protelphidum anglicum MURRAY (41.72%) is always dominant, followed in order of frequency by Elphidium decipiens (COSTA) Auct. (32.16%), Ammonia beccarii tepida (CUSHMAN) (10.84%), Quinqueloculina seminulum (LINNE') (9.37%), Elphidium articulatum (d'ORBIGNY) (3.86%), Elphidium sp. MURRAY (2.02%), Cribrostomoides jeffreysii (WILLIAMSON) (0.18%).

At station 5, depth is 1.70 m; sediment is represented by siltyclay. Frequency of Protelphidium anglicum MURRAY is still 47/55%, but frequencies of other species show little variation. They include Quinqueloculina seminulum (LINNE') (20.48%), Elphidium decipiens (COSTA) Auct. (16.87%), Elphidium sp. MURRAY (6.58%), Ammonia beccarii tepida (CUSHMAN) (6.58%), Elphidium articulatum (d'ORBIGNY) (2.44%), Cassidulina carinata (SILVESTRI) (0.10%).

As we said above, the samples examined are included between a 1.60-1.80 m depth and located in the inner part of the lagoons in a low energy sedimentary environment. Lithological characters are similar; physical and chemical conditions and foraminiferal assemblages are a little variable.

In fact in the Basson lagoon the assemblage is oligotypical with Protelphidium anglicum MURRAY being dominant species whereas in Canarin lagoon, the foraminiferal assemblage is characterized by Protelphidium anglicum MURRAY and Elphidium decipiens (COSTA) Auct. at station 6 and Protelphidium anglicum MURRAY and Quinqueloculina seminulum (LINNE') at station 5.

The horizontal distribution of Foraminifera sampled in this area can be considered as depending on somewhat different environmental conditions.

Some species that we mentioned above have been also sampled in other Mediterranean, European and Extraeuropean areas. Quinqueloculina seminulum, Quinqueloculina bicornis, Ammonia beccarii tepida have been found in Venetian lagoon by SILVESTRI 1950 and CITA & PREMOLI SILVA 1966-67; Quinqueloculina seminulum, Quinqueloculina bicornis, Miliolinella subrotunda, Protelphidium anglicum, Elphidium articulatum, Cribrostomoides jeffreysii in hyposaline marshes, in shallow waters and in channels of Southern England by MURRAY 1973; Ammonia beccarii tepida, Elphidium articulatum and Elphidium incertum in

Northern France by PUJOS 1973; Cribrostomoides jeffreysii, Milioli-nella subrotunda and Quinqueloculina seminulum in Extraeuropean waters and exactly in Plata River by BOLTOWSKOY & LENA 1974.

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