Ponza Island is located in the western sector of the Pontine volcanic Archipelago, on a structural high of the continental Tyrrhenian shelf. This preliminary study is comprised in a broad interdisciplinary project, aimed to know and describe the sea bottom of the Pontine Archipelago. On the whole, 22 grab samples, collected for micropaleontological analyses east to Ponza during the cruise of spring 2001, have been studied. Sampling stations range from 20 to 380 m water depth and are located on four transects, having the NW/SE direction. Among these, one transect comprises 12 stations, while the others are constituted by 2 to 4 stations. Samples were stored in ethanol-Rose Bengal solution to distinguish between living and dead foraminifera. The quantitative analysis was carried out on the total assemblage because the percentage of living foraminifera was very low. The total assemblage, which represents the mean environmental conditions over the year, according to Scott and Medioli (1980), was utilised for statistical data processing, while the living specimens were considered indicative of autochthonous species. All the samples were wet-sieved over 63 and 125 µm, but in this study, data from > 125 µm size fraction are used. A total of 198 species, belonging to 90 genera, have been recognized. The data set, containing relative abundance of 16 common taxa of benthic foraminifera, was used to perform
the multivariate analysis (HCA and PCA). The Q-mode HCA groups samples that may be viewed as foraminiferal biofacies (Scott et al., 2001). The output of Q-mode HCA singles out three main clusters, corresponding to three distinct foraminiferal assemblages: 1) *Rosalina bradyi* and *Asterigerinata mamilla* assemblage (depth: 20-87 m), with *Lobatula lobatula*, *Spirillina vivipara*, *Tretomphalus concinnus* and miliolids; 2) *Cassidulina carinata* assemblage (depth: 79-202 m), with *Bolivina difformis* and *Textularia bocki*; 3) *Uvigerina mediterranea* assemblage (depth: 250-380 m), with *Bulimina marginata* and *Cassidulina crassa*. The three assemblages correspond to a bathymetric zonation: assemblage 1 corresponds to infralittoral environment and is located near Ponza, mainly in the sea grass bottom (*Posidonia oceanica*); assemblage 2 corresponds to circalittoral environment, while assemblage 3 corresponds to upper epibathyal environment.

Factor 1 of PCA, that explains the 30.8% of variability, shows a decreasing trend according to the increasing water-depth. It presents positive values in the infralittoral and circalittoral samples, negative values in the epibathyal ones. In addition, factor 1 shows a negative correlation with P/B ratio: negative values of factor 1 correspond with higher values of P/B ratio.