ABSTRACT

The area under investigation is off the coast of Rameswaram, in the Palk Bay, which lies on the east coast of Tamil Nadu state.

The present work has been undertaken with a view to inventory the foraminiferal fauna from off Rameswaram, to discover the seasonal variations in the population and to evaluate the various environmental factors governing the living population.

Accordingly, sediment and bottom water samples were collected from 13 stations, once in three months, for a period of one year representing the 4 seasons.

108 species belonging to 50 genera have been identified. One new species and one new variety have been observed. 14 species are recorded for the first time from Indian waters and 5 species are noticed for the first time in the east coast of India.

The living and total populations per unit volume of sediment were determined.

The various environmental factors were evaluated and correlated with the population abundance.

The seasonal abundance of living and total (living + dead) populations were discussed. Distribution and ecology of the abundant and widespread fauna are discussed. The increase in temperature, salinity dissolved oxygen content of the bottom waters as well as the higher calcium carbonate content and decrease in organic matter content of the sediments are
suggested for the abundance of living population in the area of study. The accomodative substrate has been found to be silty sand.

A statistical approach to the relative abundance of different genera, employing 'factor analysis' as well as 'species diversity' has been attempted.

A comparative study of the foraminiferal assemblage of the present area with those from off Porto Novo (Tamil Nadu state) has been made.