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Ecological preference of planktic foraminifera from the south-eastern Arabian Sea

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The southern margin of India is oceanographically unique with cross-basin exchange of waters between Arabian Sea and Bay of Bengal along with an influence from both the summer and winter monsoon. As a result, the distinct hydrographic parameters are expected to influence the diversity and abundance of planktic foraminifera from this region. Hence, 54 surface sediment samples covering a depth range from 25 m to 2980 m were analysed to establish site-specific planktic foraminifera based on their ecological preference. We have identified 30 planktic foraminifera species of which Globigerina bulloides was the most abundant at all the stations but most abundant in the eastern stations of the study area, which could suggest its preference for higher productivity. The abundance of Globorotalia menardii and Neogloboquadrina dutertrei increased in the deeper stations as well as the western stations. Other species like Globigerinoides ruber and Globigerinita glutinata also vary in tandem with the increasing water depth in the southern stations. G. glutinata also show a significant abundance in few stations of the eastern transect. The ecological preference of these abundant planktic foraminifera from this region will be useful for reconstruction of paleoclimate and its associated processes.