## LIST OF FIGURES

Figure-1 Location map of the study area.	3
Figure-2 Geological map of Kachchh region (Biswas and Deshpande, 1972)	4
Figure-3 Bathymetric map of the Gulf of Kachchh (Srivastava and John, 1977)	, 8
Figure-4 Site map showing general geology of the study area.	10
Figure-5 Geomorphic map showing remnant of spits, tidal flats and fan-delta complex.	26
Figure-6 Tectonic map of Kachchh	31
Figure-7 Geomorphic map showing drainage patterns and coastal configuration around the Mandvi.	32
Figure-8 Longitudinal profile of river Rukhmavati and Kharod.	33
Figure-9 Simplified flow chart	35
Figure-10 Five levels of exposures possible for semi-diurnal tides	38
Figure-11 Grain size variation in ridge across intertidal zone at Rawal Pir site.	39
Figure-12 Grain size variation from Mandvi to Modwa Spit sites.	39
Figure-13 Mean grain size variation in ridge and runnel system of the Rawal Pir site	40
Figure-14 Sediment trigon of Wind Farm site showing nature of the sediments.	41
Figure-15 Sediment trigon of Rawal Pir site showing nature of the sediments.	41
Figure-16 Sediment trigon of Modwa Spit site showing nature of the sediments.	42
Figure-17 Variation in plane bed lamination thickness.	43
Figure-18 Graph showing relation between thickness of upper sand layer and slope on beach on development of various air trap structures.	55
Figure-19 Flow chart depicting stages in formation of air trap structures.	56
Figure-20 Three dimensional figure showing various seismically deformed structures	58
Figure-21 Ripple distribution according to the flow regimes in runnels	64
Figure-22 Zonation of the polychaete species across the intertidal zone.	88

-

.

Figure-23 Zonation of the crustacean species across the intertidal zone.	89
Figure-24 Observed depth and height of the feeding area of individual organisms plotted at the SWI and its relation with organic matter.	94
Figure-25 Percentage of feeding styles observed in polychaetes	96
Figure-26 Burrow diameter of the Ocypode species across the intertidal zone.	110
Figure-27 Crustacean burrow densities across the intertidal zone	111
Figure-28 Graph showing the number of burrow openings against the minutes during low tide.	114
Figure-29 Burrow orientation of the <i>Ocypode</i> burrows (a) orientation of backshore burrows (b) orientation of the foreshore burrows.	115
Figure-30 Percentage of the materials used for constructing the <i>Diopatra</i> tubes.	132
Figure-31 Aurmoured length of the Diopatra tubes.	133
Figure-32 Rose diagram showing the orientation of the Diopatra tubes	133
Figure-33 Schematic diagram showing Monocraterion and Polykladichnus.	150
Figure-34 Schematic diagram showing Faecechina ichnocoenosis	166
Figure-35 Schematic diagram of the Chondrite ichnocoenosis	169
Figure-36 Schematic diagram of Skolithos ichnocoenosis	170
Figure-37 Schematic diagram of the Psilonichnus ichnocoenosis.	172
Figure-38 Schematic diagram of the Ophiomorpha ichnocoenosis.	174
Figure-39 Schematic diagram of the Balanoglossites ichnocoenosis.	175
Figure-40 Sequence of the development of the Glossifungites ichnocoenosis	179
Figure-41 Ichnologic profiles of the crustacean traces across the intertidal zone.	183
Figure-42 Ichnologic profile of the polychaete traces across the intertidal zone.	184
Figure-43 Ichnosedimentologic model of the beach	187
Figure-44 Ichno-sedimentologic model of the ridge	191
Figure-45 Ichno-sedimentolgic model of runnel	195
Figure-46 Ichno-sedimentolgic model of lagoon	198

ix

.