

Survivorship of benthic foraminifera across the Danian Warm World

Thulasi Thena^{1*}, Dhananjai K Pandey¹, Raj K Singh², Nisha Nair¹, K S Roshni¹

¹*National Centre for Polar and Ocean Research (NCPOR), Ministry of Earth Sciences, Goa 403804, India*

²*School of Earth, Ocean, and Climate Sciences, Indian Institute of Technology Bhubaneswar, 752050, Odisha, India*

*Corresponding author e-mail and orcid: thenadoss@ncpor.res.in ; tinathulasi@gmail.com ; <https://orcid.org/0000-0002-9304-8665>

Table 1: Census count of dominant benthic foraminifera in Laxmi basin, Northern Indian Ocean

Exp	Hole	Depth	<i>Bolivina</i>	<i>Bulimina</i>	<i>Cassidulina</i>	<i>Cibicidoides</i>	<i>Epistominella</i>	<i>Oolina</i>
		mbsf	%					
355	U1457C	1062.41	25.00	0.00	25.00	0.00	0.00	0.00
		1065.17	8.89	3.33	1.11	2.22	2.22	8.89
		1071.7	0.00	13.04	0.00	8.70	43.48	8.70
		1072.82	0.00	0.00	0.00	50.00	0.00	0.00
		1081.15	0.00	0.00	3.08	27.69	20.00	1.54
		1083.61	4.17	6.67	0.00	12.50	0.00	0.00
		1090.18	5.26	0.00	21.05	5.26	15.79	0.00
		1090.9	0.56	0.00	1.11	0.00	0.56	0.00
		1091.65	0.00	0.00	0.00	0.00	0.00	0.00
		1092.04	0.00	0.00	0.00	0.00	0.00	0.00
		1092.63	0.00	0.00	0.00	0.00	0.00	0.00

Table 2: Foraminiferal classification based on relative abundance (benthic/planktic), habitual preference (infauna/epifauna), and shell composition (calcareous/agglutinated) with calcium carbonate (CaCO_3) and Magnetic susceptibility (MS) of Laxmi basin.

Exp	Hole	Depth	Benthic	Planktic	Infauna	Epifauna	Calcareous	Agglutinated	CaCO₃	MS
		mbsf	%							10⁻⁸ m³ kg⁻¹
355	U1457C	1062.41	100	0	75	0	100	0	4.649	0.89
		1065.17	79.65	20.35	28.89	5.56	100	0	3.358	10.47
		1071.7	100	0	82.61	17.39	100	0	5.661	1.25
		1072.82	100	0	0	100	100	0	1.075	0.8
		1081.15	98.48	1.52	32.31	49.23	100	0	2.348	8.43
		1083.61	73.17	26.83	15.83	22.5	90.83	9.17	2.179	11.53
		1090.18	67.86	32.14	52.63	26.32	100	0	3.807	40
		1090.9	93.26	6.74	17.22	0.56	67.78	32.22	5.941	18.17
		1091.65	92.31	7.69	0	0	91.67	8.33	0.385	6.93
		1092.04	0	0	0	0	0	0	0.969	21.46
		1092.63	0	0	0	0	0	0	0.147	12.11

Table 3: The assemblage of benthic foraminifera belonging to each morphogroup in Laxmi basin of Danian period.

[illegible]

Table 4: Oxidic, Suboxic, Dysoxic benthic foraminifera and Oxygen content were calculated through transfer function from oxyphilic species in Laxmi basin, Northern Indian Ocean.

Exp	Hole	Depth	Oxic	Suboxic	Dysoxic	O2 content
		mbsf	%	%	%	ml/L
355	U1457C	1062.41	0.00	50.00	25.00	0.01
		1065.17	5.56	7.78	12.22	0.06
		1071.7	56.52	17.39	17.39	0.37
		1072.82	100.00	0.00	0.00	0.60
		1081.15	67.69	10.77	1.54	0.42
		1083.61	16.67	10.83	10.83	0.13
		1090.18	26.32	21.05	15.79	0.16
		1090.9	0.56	2.22	15.00	0.01
		1091.65	0.00	0.00	0.00	0.01
		1092.04	0.00	0.00	0.00	0.01
		1092.63	0.00	0.00	0.00	0.01

Table 5: Benthic foraminifera diversity pattern of Laxmi basin (Fisher alpha) in calculated through PAST software.

Exp	Hole	Depth	Fisher alpha
		mbsf	diversity
355	U1457C	1062.41	0.8342
		1065.17	3.819
		1071.7	3.561
		1072.82	0.3542
		1081.15	3.561
		1083.61	6.327
		1090.18	2.046
		1090.9	2.761
		1091.65	0.3542
		1092.04	0
		1092.63	0