Expedition 313 Site M0029, Table T3. Distribution of calcareous nannofossils, Hole M0029A. (See table notes.)

Core, section, inerval (cm)	Depth (mbsf)	Nannofossil zone (Martini, 1971)	Abundance	Preservation	*Braarudosphaera bigelowii*	*Calcidiscus leptoporus*	*Calcidiscus macintyrei*	*Calcidiscus premacintyrei*	*Calcidiscus tropicus*	*Catinaster*/*Discoaster* sp.	*Clausicoccus fenestratus*	*Clausicoccus*? sp.	*Coccolithus miopelagicus*	*Coccolithus pelagicus*	*Coronocyclus nitescens*	*Cribrocentrum reticulatum*	*Cruciplacolithus* spp.	*Cryptococcolithus mediaperforatus*	*Cyclagelosphaera*? sp.	*Cyclicargolithus abisectus*	*Cyclicargolithus floridanus*	*Dictyococcites perplexus*	*Dictyococcites productus*	*Dictyococcites* spp. (<2 µm)	*Discoaster* cf. *adamanteus*	*Discoaster deflandrei*	*Discoaster deflandrei* (5 rays)	*Discoaster deflandrei* (7 rays)	*Discoaster druggii*	*Discoaster exilis*	*Discoaster petaliformis*	*Discoaster sanmiguelensis*	*Discoaster variabilis*	*Discoaster variabilis* (5 rays)	*Emiliania huxleyi*	*Gephyrocapsa caribbeanica*	*Gephyrocapsa oceanica*	*Gephyrocapsa* spp. (small)	*Goniolithus fluckigeri*	*Helicosphaera ampliaperta*	*Helicosphaera carteri*	*Helicosphaera* cf. *minuta*	*Helicosphaera euphratis*	*Helicosphaera intermedia*	*Helicosphaera mediterranea*	*Helicosphaera orientalis*	*Helicosphaera perch-nielseniae*	*Helicosphaera scissura*	*Helicosphaera vedderi*	*Helicosphaera walbersdorfensis*	Holococcolith	*Holodiscolithus macroporus*	*Hughesius gizoensis*	*Lithostromation perdurum*	*Micrantholithus* spp.	*Pontosphaera* spp.	*Reticulofenestra danica*	*Reticulofenestra lockeri*	*Reticulofenestra minuta*	*Reticulofenestra minutula*	*Reticulofenestra pseudoumbilicus*	*Reticulofenestra pseudoumbilicus* (5–7 µm)	*Reticulofenestra samodurovii*	*Sphenolithus belemnos*	*Sphenolithus disbelemnos*	*Sphenolithus dissimilis*	*Sphenolithus heteromorphus*	*Sphenolithus moriformis*	*Syracosphaera* spp.	*Thoracosphaera* spp.	*Transversopontis pulcher*	*Triquetrorhabdulus carinatus*	*Triquetrorhabdulus milowii*	*Umbilicosphaera jafari*	*Umbilicosphaera rotula*	Reworked Cretaceous	Comments
313-M0029A-																																																																												
5R-1, 34.5	7.25	NN21	F	P										?										R											F		R																							R	R																	
7R-1, 25	13.25		C	M–G							*			R																					Fr	R	C	F																						F	R																*	*Emiliania huxleyi* (<250 ka)
13R-1, 11	40.56	?	B																																																																							
15R-CC, 8	50.09		B																																																																							
16R-1, 108	53.73		B																																																																							
26R-1, 66.5	149.63		B																																																																							
28R-1, 80	155.86		B																																																																							
30R-1, 60	160.47		B																																																																							
34R-1, 92	192.58		B																																																																							
38R-1, 109	226.30		B																																																																							
40R-1, 32	231.63		B																																																																							
41R-CC, 2	235.91		B																																																																							
47R-1, 85.5	271.82		B																																																																							
53R-1, 12	289.38		A	M			R					R		Fr					R			R	C	Fr																	F	F				R			F	R				R		F			C	Fr	F	Fr						R		F				C			
54R-1, 10	292.41	NN6/NN7	C	M		R							R	Fr								F	F	Fr																	F	F														R			Fr	C	F	F						R		R				F			LO *Coccolithus miopelagicus* (11.0 Ma)
59R-1, 107	305.58		Fr	M										Fr								F	F	Fr																	F																		Fr	Fr	F	F								R				F			
62R-1, 31	313.97		Fr	M	R							R		F									F																			R																	Fr	F	R	F								Fr				F			
64R-2, 14	321.40		C	M–G	R				R				R	Fr					R			F	Fr	Fr						R									R		R	R								R				R		R			C	C	F	C						R		F				C	R		
65R-2, 122	325.54		C	M					R				R	Fr					R			F	Fr	Fr																	R	R												R		R			Fr	C	F	Fr						F		F				Fr			
68R-1, 19	332.15		A	M								R	R	Fr					R			F	Fr	C	R							R									F	F														R			C	C	Fr	Fr						R	F	F				Fr	R		
70R-2, 13	339.69	NN6	A	M		R		R					F	Fr					R			Fr	F	Fr						R		?									Fr	R		R										R		F			C	C	Fr	C						F	R	F				Fr	R		LO *Calcidiscus premacintyrei* (12.65 Ma)
71R-1, 45	341.56		B																																																																							
74R-1, 87	351.13		A	M		R							F	Fr					R		?	R	C	C						R											Fr	F												R		R			C	C	F	F						F		Fr				F			
78R-1, 147	360.88	NN5	A	M–G	R	R						F	F	Fr			*		R		R		Fr	C						R	?										Fr	F												R		R			C	C	F	Fr					R			F				C	R		FO *Sphenolithus heteromorphus* (13.6 Ma)
79R-2, 7	364.03		A	M						R		F	F	C			*		F	*	Fr	R	C	Fr																	Fr															Fr			A	Fr	F	C					R			Fr				Fr	F		
81R-2, 44	370.30		A	M–G	R								F	Fr			*	R	R				Fr	Fr																	F	F												R		R			C	Fr	R	F					R			F				C	R		
84R-1, 17	377.88		A	M						R				Fr			*		F		R		Fr	F							?										Fr	R												F					C	C	F	Fr								Fr				F	R		
87R-1, 7	386.93		A	P–M								F	F	Fr									C	C							R										Fr																		Fr	C		Fr							R	F							
89R-1, 80	393.76		A	P								Fr		Fr							R		C	C															R		Fr																		A	Fr		F								F							
92R-1, 21	402.32		A	P–M	F	R			?			F	R	Fr					F			R	C	Fr							R										Fr													R		R			C	C	R	Fr								Fr				F	R		
94R-2, 145	411.16		A	M–G	F	R						F	F	C			*		R		F		C	Fr						R	R										Fr	Fr		R					R							Fr			A	Fr	R	F					R			Fr				Fr	F		
96R-1, 20	414.51		Fr	M										Fr							R		R							R	R										R	R																		Fr		R					R			F				F			
99R-1, 16	423.62		V	M	R	R						Fr	F	Fr			*		F		F		Fr	A						R											Fr	R											R	R					A	C	R	F					R		Fr	Fr				C	R		
102R-2, 8	434.23		A	M–G	R	F						Fr	R	Fr			*		R		R		Fr	C							R										Fr	Fr												R	R				C	C		F					R		R	Fr				Fr	R		
105R-1, 19	439.20		A	M	F				R			Fr	R	Fr			*		F				Fr	C						R	R										Fr	F									R			F					C	C		F					R			Fr				C	R		
108R-2, 19	449.55		C	M	R	R		R				F		C					F		F	F	C	Fr							R	?									Fr															F			Fr	Fr		Fr					R		R	Fr				F	R		Full of aragonite? needles
111R-2, 127	459.78		A	M–G	F	R			R			Fr	R	C			*		R		F		Fr	C	R	R				R	F	F	R								Fr	F												R		Fr			A	C	R	F					Fr	F	R	Fr				C	F		
114R-1, 12	466.28		C	M									F	C					R		R		R			R				F											F															R			F	R								R		Fr				R			
115R-2, 48	471.19		A	M									R	C					F		R		Fr	Fr						R		?	R	R							C	F														F			A	Fr		F					R		F	F				F			
119R-CC, 4–5	479.79		F	M–G								R		R																											R															R			F	F										R				F		*	
120R-2, 114	484.06		A	M	F							R	R	C					R		R	R	F	Fr						R	R										F									Fr					R				A	Fr		F					F	R	F	Fr				C	R		
122R-2, 13	489.15		A	M–G	R	R		R				F	R	Fr			*		R		R	R	F		R							R	R								Fr									Fr		R		R	F		F			A	Fr		F					F	F	F	Fr				Fr	F		
125R-2, 19	498.36		A	M		F		R	R			F	F	C				R	F			R		Fr	R	R				F	F		F	R						?	C	F					R		F							F			A	C		Fr					F	F	F	Fr				C	F		Possible broken *Helicosphaera ampliaperta*
128R-1, 56	506.37		A	M	F	F		R				F	F	C			*	F	R		R	R	Fr	C		R				F	R	F		R					R		Fr	F					R						R			F			C	C		Fr					R	R	F	Fr				C	F		
131R-1, 3	514.99		F	M																										F	F	R	F								R																		R	F										F							
134R-1, 16	524.27		A	M	R	F						Fr	F	C				R	F		F		F	F	R	R				F	F		R	R							Fr												R	R		F			A	C		F					F		R	Fr				C	F		
137R-2, 147	533.19	NN4	A	M	Fr	F		F				Fr	R	C			*	R	R		R	F	Fr	F	R	F				F	R		F							R	Fr								F					R	R	F			A	Fr		Fr					R	R	R	Fr				C	F		
140R-1, 23.5	539.55		A	M	Fr	R						Fr		C					R		R			Fr		F					R									R	Fr																		C	Fr		R					R	R	F	Fr				C	R		
142R-2, 5	547.01		A	M		F		R					F	C				R	R		F		F	F	R	F	R				R		R							R	Fr								R							F			C	Fr		F					R	F		Fr				Fr	F		
145R-2, 4	556.15		F	M										R							R				R						F																												R	R										F							
148R-1, 45.5	561.17		A	M	R	R		R				Fr	Fr	C			*		R		Fr			Fr	F		R			R	Fr	F	R							F	Fr													R		F			A								F	F	F	Fr				Fr	F		
151R-1, 23	570.09		A	M	R	R		R				Fr	Fr	C	R		*		F		Fr		F	Fr	R	R	R				F		R							F	Fr											R		R		Fr			A	R							R	R	F	Fr				C	F		
154R-1, 15	579.16		F	M									R	R											R	R					F																									R														R							
155R-1, 39	582.45		A	M	R							R	Fr	C					R		R		F	F	R					R	F		R	R						R	F		R													F			A	Fr							R	F		Fr				Fr	R		
158R-1, 20	591.41		A	M		R						R	F	C				R	F		F		F	F		R					F	R	R							F	Fr		R					R								F			A	C							R	R	R	F				C			
161R-1, 14	600.50		A	M								F	F	C					R		F		F	Fr	F					F	F	F	?							R	Fr													R		F			C	C							R	F	F	Fr				Fr	R		
164R-2, 145	612.46		A	M								F	F	A					R		F	R		Fr		F				R	F	?	F							F	C							F								Fr			A	Fr	Fr	C					R	R	R	Fr				Fr	F		LcO *Discoaster deflandrei* (16.2 Ma)/FO *Discoaster petaliformis*
167R-2, 132	621.49		A	M		R			R				F	A					R		F	R			R	Fr														Fr	Fr							Fr								R			C	Fr	Fr	C					Fr	F		Fr							
170R-1, 133	629.14		A	M		R						F	F	C							Fr	F		Fr	R	Fr				R			R							F	Fr							Fr								F			C	F	Fr	C					Fr	F		F			R	Fr			
173R-1, 22	635.45		Fr	M								R		F							R		R		R																R																		F	R	F	F					R			F							
175R-2, 47	641.99		C	P–M										F					R		F	F	F	F	R	F							F																										Fr	F	F	Fr								F							
178R-1, 25	649.41		A	M		F							F	Fr					R		F	Fr	C	C		F														F	F															R		*	C	F	F	Fr					R			F				Fr			
180R-1, 130	653.51		A	M	R	R		?					F	C							Fr	F	Fr	C		F				R			R							F	Fr							R									*	*	C	Fr	F	C					R	F		Fr			R	Fr	F		
183R-1, 45	661.81		A	M								R	F	C							F	F	C	C	R	F				R			R							R	F	?						R								R	*	*	C	Fr	Fr	C	*				R	R		F				Fr	F		
186R-2, 17	669.13		F	P–M										F							R		R																		R										R								F	F	F	F													R		
189R-1, 73	674.29		A	M	R				F			F	F	C					R		F	Fr	F	Fr	R	F	R			R			R							R	Fr		F					R								R	*		C	Fr	F	Fr	*					R		F				C	F		Significant reworking of Paleogene nannofossils
192R-1, 23	682.94		A	M	F				R		*	F	R	C	R		*		R		F	Fr	F	C	R	F							R							R	Fr		R					F			R	R				F		*	A	Fr	Fr	C	*				R	R		F		*	R	C	R		Significant reworking of Paleogene nannofossils
194R-1, 22	689.03	?	C	P–M								R	R	Fr					R		F	F			R	F	R	R	?				F	R																										F	F	C	*							F			?				
197R-1, 20	698.16	NN3	A	P–M									R	C	F						Fr	F		Fr	R	F	R						R							?	R		R		R											F	*	*	Fr	Fr	Fr	C	*	F	R			F		Fr					R		*Sphenolithus belemnos* (18.3–19.2 Ma)
199R-1, 132.5	705.39	?	F	P–M										R												F																																												R							
202R-1, 50	712.28	Lower NN3/NN2	C	P–M								R	Fr	C							R		F			Fr	R		?				R								R							R								F			F	Fr	F	Fr						R		Fr				R			Below FO *Sphenolithus belemnos* (>19.2 Ma)
205R-1, 30	719.61	NN2	C	P–M									F	Fr							F		F		F	C	F		?				F								R		?													F		R	Fr	C		Fr				R		F		F		R					LO *Triquetrorhabdulus carinatus* (>19.6 Ma)
208R-1, 36	728.82		A	M		R							F	C	R	*					Fr	Fr	C	Fr	F	Fr	R	R													F		R													Fr		R	A	C	F	C				R		F		F		R		Fr	F		
210R-1, 22	734.78		A	M									Fr	C	R						Fr	Fr	Fr		F	Fr															F		F										R			F		R	A	C	F	C				R		F		R				Fr	F		
212R-1, 51	741.17		C	P–M									F	Fr							Fr	F	R		F	F																																R	Fr	Fr	R	F						F							R		
213R-1, 8	743.79		A	M									F	C							Fr		C	Fr	F	C	F	R	?												R															R		F	Fr	A		Fr				F		F		F	*	?			R		
215R-1, 18	747.14		A	M		?							F	C		*					Fr	C	Fr	Fr	F	Fr															F		R													F		F	C	Fr	F	C						F		Fr		R		Fr	R		
217R-2, 113	755.51		C	P–M									F	Fr							Fr	F	Fr		F	C	R	R													F															F			F	C		Fr				R		F		F							
217R-CC, 11–13	756.33		C	P–M									R	Fr							Fr	F	F		F	Fr	R														F															F		R	Fr	Fr		Fr				R		R		F							

Notes: Abundance: V = very abundant, A = abundant, C = common, Fr = frequent, F = few, R = rare; B = barren; ? = questionable; * = reworked. Preservation: G = good, M = moderate, P = poor. LO = last occurrence, FO = first occurrence, LcO = last common occurrence.