Manuscript 183SR-016, Table T1. Relative abundance of diatoms, ebridians, and endoskeletal dinoflagellates in the Neogene, Hole 1138A.

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone
183-1138A-					
1R-1, 70–71	0.70	A	M–G	B	*Thalassiosira lentiginosa*
1R-2, 109–110	2.59	A	M–G	X	
1R-3, 69–70	3.69	A	M	X	
1R-4, 20–21	4.70	A	M	B	
1R-CC, 16–21	8.53	A	G	B	
2R-CC, 7–12	12.78	A	G	B	
3R-2, 34–35	18.94	A	M–G	B	*Actinocyclus ingens*
3R-CC, 7–12	25.57	A	M–G	B	
4R-1, 25–26	26.75	A	M–G	R	
4R-CC, 6–11	34.94	A	M–G	B	
5R-1, 100–101	37.00	A	M–G	X	
5R-2, 25–26	37.75	A	M–G	X	
5R-2, 100–101	38.50	A	M–G	R–F	
5R-3, 100–101	40.00	A	M–G	F	
5R-4, 100–101	41.50	A	G	B	
5R-5, 100–101	43.00	A	M–G	X–R	
5R-6, 100–101	44.50	A	M–G	R	
5R-7, 25–26	45.25	A	M	F–C	
5R-CC, 12–17	45.58	A	M–G	R	
6R-1, 100–101	46.40	A	M–G	B	
6R-2, 100–101	47.90	A	M–G	B	
6R-3, 100–101	49.40	A	M	X	*Fragilariopsis kerguelensis*
6R-CC, 12–17	49.65	A	M–G	F	
7R-1, 100–101	55.80	A	M–G	F	
7R-2, 100–101	57.30	A	M–G	F	
7R-3, 25–26	58.05	A	M	X–R	*Thalassiosira kolbei*
7R-3, 100–101	58.80	A	M–G	R	
7R-4, 100–101	60.30	A	M–G	F	
7R-5, 100–101	61.80	C	P–M	C	
7R-CC, 13–18	62.31	A	G	R	
8R-1, 100–101	65.30	A	M–G	X	*Thalassiosira vulnifica*
8R-2, 100–101	66.80	A	M–G	F	
8R-3, 100–101	68.30	A	M–G	A	
8R-4, 100–101	69.80	C	P–M	F–C	*Thalassiosira insigna–Thalassiosira vulnifica*
8R-5, 100–101	71.30	A	M	C	
8R-6, 100–101	72.80	A	M	C–A	
8R-CC, 10–15	74.04	C	P–M	R	
9R-1, 100–101	74.70	A	M–G	A	*Fragilariopsis interfrigidaria*
9R-2, 100–101	76.20	A	M	C–A	
9R-3, 100–101	77.70	A	M–G	C–A	
9R-CC, 14–19	79.21	A	G	C–A	
10R-1, 25–26	83.35	A	M–G	C–A	
10R-1, 100–101	84.10	A	M–G	C–A	
10R-2, 25–26	84.85	A	M	R	
10R-2, 100–101	85.60	A	M–G	R–F	
10R-3, 100–101	87.10	A	M–G	X	
10R-CC, 13–18	87.53	A	M–G	X	
11R-1, 100–101	93.70	A	M–G	R–F	
11R-2, 100–101	95.20	A	M–G	R	
11R-3, 100–101	96.70	A	M–G	F	
11R-4, 100–101	98.20	A	M–G	F	*Fragilariopsis barronii*
11R-5, 100–101	99.70	A	M–G	C	
11R-6, 100–101	101.20	A	M–G	R–F	
11R-CC, 9–14	102.39	A	M–G	R	
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*
12R-2, 100–101	104.80	A	M–G	F	
12R-3, 100–101	106.30	A	M	A	*Nitzschia reinholdii*
12R-CC, 23–28	107.03	C	M	A	
13R-1, 100–101	113.00	C	P–M	A	
13R-2, 100–101	114.50	A	M	A	
13R-3, 100–101	116.00	A	M–G	A	
13R-4, 100–101	117.50	C	M	A	
13R-CC, 19–24	118.59	C	P–M	C	*Actinocyclus ingens* var. *ovalis*
14R-1, 52–53	122.12	C	P	A	
14R-2, 50–51	123.60	C	P	A	
14R-3, 50–51	125.10	C	P–M	A	
15R-CC, 15–20	134.23	A	G	A	
16R-CC, 13–18	145.85	A	M–G	A	*Asteromphalus kennettii/Denticulopsis simonsenii*
17R-2, 50–51	152.50	A	M	A	
17R-4, 50–51	155.50	A	M	A	
17R-CC, 5–10	158.27	A	M	A	
18R-1, 50–51	160.60	A	M	A	*Denticulopsis dimorpha*
18R-2, 50–51	162.10	A	M	A	
18R-3, 50–51	163.60	A	M	A	
18R-4, 50–51	165.10	A	M	A	
18R-5, 50–51	166.60	A	M	A	
18R-6, 50–51	168.10	A	M	A	
18R-CC, 0–7	168.84	A	G	A	
19R-1, 50–51	170.20	A	M	A	
19R-2, 50–51	171.70	C–A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*
19R-3, 50–51	173.20	A	M	A	
19R-CC, 15–20	174.75	A	M	A	
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*
20R-CC, 12–17	186.14	C	P	A	
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"
25R-CC, 12–17	230.02	R	P	A	*Thalassiosira praefraga* "a–b"
26R-CC, 0–5	239.85	F	P	A	
27R-CC, 0–5	248.71	F	P	A	
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"
30R-CC, 14–19	278.21	B	—	A	Not zoned
31R-CC, 0–10	285.85	B	—	A	
32R-CC, 1419	296.30	B	—	A	
34R-CC	319.23	B	—	A	
35R-CC, 12–17	330.78	B	—	A	
36R-CC, 0–5	340.60	B	—	A	

Notes: Bold brackets indicate zonal marker datums, and zonal intervals are divided by horizontal lines. Abundance: A = abundant, C = common, F = few, R = rare, X = present, B = barren. Preservation: G = good, M = moderate, P = poor.

Table T1. Relative abundance of diatoms, ebridians, and endoskeletal dinoflagellates in the Neogene, Hole 1138A. (See table note. Continued on next 51 pages.)

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	Diatoms	*Actinocyclus actinochilus*	*Actinocyclus curvatulus*	*Actinocyclus dimorphus*	*Actinocyclus fasciculatus*	*Actinocyclus ingens*	*Actinocyclus ingens* var. *nodus*	*Actinocyclus ingens* var. *ovalis*	*Actinocyclus ingens* var. 1 [1138A]	*Actinocyclus ingens* var. 2 [1138A]	*Actinocyclus karstenii*	*Actinocyclus maccollumii*	*Actinocyclus* spp.	*Actinoptychus senarius*	*Arachnoidiscus* spp.
183-1138A-																				
1R-1, 70–71	0.70	A	M–G	B			R													
1R-2, 109–110	2.59	A	M–G	X			R													
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*		F													
1R-4, 20–21	4.70	A	M	B			R				r									
1R-CC, 16–21	8.53	A	G	B			X													
2R-CC, 7–12	12.78	A	G	B							r									
3R-2, 34–35	18.94	A	M–G	B							F									
3R-CC, 7–12	25.57	A	M–G	B							C									
4R-1, 25–26	26.75	A	M–G	R							C				F					
4R-CC, 6–11	34.94	A	M–G	B							C									
5R-1, 100–101	37.00	A	M–G	X							A									
5R-2, 25–26	37.75	A	M–G	X							C									
5R-2, 100–101	38.50	A	M–G	R–F							C									
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*		R				A									
5R-4, 100–101	41.50	A	G	B							A									
5R-5, 100–101	43.00	A	M–G	X–R							A									
5R-6, 100–101	44.50	A	M–G	R							A									
5R-7, 25–26	45.25	A	M	F–C							C									
5R-CC, 12–17	45.58	A	M–G	R							C									
6R-1, 100–101	46.40	A	M–G	B							A									
6R-2, 100–101	47.90	A	M–G	B							A									
6R-3, 100–101	49.40	A	M	X							A									
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*						C									
7R-1, 100–101	55.80	A	M–G	F							A									
7R-2, 100–101	57.30	A	M–G	F							A									
7R-3, 25–26	58.05	A	M	X–R							A									
7R-3, 100–101	58.80	A	M–G	R							A									
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*						A									
7R-5, 100–101	61.80	C	P–M	C							A									
7R-CC, 13–18	62.31	A	G	R							C									

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Araniscus lewisianus*	*Asterolampra tela*	*Asteromphalus kennettii*	*Asteromphalus oligocenicus*	*Asteromphalus parvulus/hookeri*	*Asteromphalus symmetricus*	*Azpeitia gombosi*	*Azpeitia harwoodii*	*Azpeitia tabularis*	*Bogorovia gombosii*	*Bogorovia veniamini*	*Cavitatus jouseanus*	*Cavitatus miocenicus*	*Cavitatus rectus*	*Cestodiscus pulchellus*
183-1138A-																				
1R-1, 70–71	0.70	A	M–G	B						F				R						
1R-2, 109–110	2.59	A	M–G	X										F						
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*					F				X						
1R-4, 20–21	4.70	A	M	B						R				R						
1R-CC, 16–21	8.53	A	G	B						R				F						
2R-CC, 7–12	12.78	A	G	B						X				F						
3R-2, 34–35	18.94	A	M–G	B						F				X						
3R-CC, 7–12	25.57	A	M–G	B						R				F						
4R-1, 25–26	26.75	A	M–G	R						F				R						
4R-CC, 6–11	34.94	A	M–G	B						R				F						
5R-1, 100–101	37.00	A	M–G	X						F										
5R-2, 25–26	37.75	A	M–G	X						X										
5R-2, 100–101	38.50	A	M–G	R–F						F										
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*					R				X						
5R-4, 100–101	41.50	A	G	B						F										
5R-5, 100–101	43.00	A	M–G	X–R						X										
5R-6, 100–101	44.50	A	M–G	R						R										
5R-7, 25–26	45.25	A	M	F–C						F										
5R-CC, 12–17	45.58	A	M–G	R						F										
6R-1, 100–101	46.40	A	M–G	B						F										
6R-2, 100–101	47.90	A	M–G	B						F										
6R-3, 100–101	49.40	A	M	X						F										
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*					C										
7R-1, 100–101	55.80	A	M–G	F						F										
7R-2, 100–101	57.30	A	M–G	F						X										
7R-3, 25–26	58.05	A	M	X–R						F										
7R-3, 100–101	58.80	A	M–G	R						R										
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*					F										
7R-5, 100–101	61.80	C	P–M	C						R										
7R-CC, 13–18	62.31	A	G	R						R										

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Chaetoceros bulbosum*	*Chaetoceros lorenzianus*	*Chaetoceros* sp. A [Harwood & Maruyama, 1992]	*Chaetoceros* spp. (spores)	*Chaetoceros* spp. (small vegetative cells)	*Cestodiscus* spp.	*Cocconeis* spp.	*Corethron criophilum*	*"Coscinodiscus" rhombicus*	*Coscinodiscus marginatus*	*Coscinodiscus* spp.	*Crucidenticula ikebei*	*Crucidenticula nicobarica*	*Dactyliosolen antarcticus* (girdle band ends)	*"Denticula"* sp. cf. *D. norwegica*
183-1138A-																				
1R-1, 70–71	0.70	A	M–G	B					F	F						X			C	
1R-2, 109–110	2.59	A	M–G	X					F	F						R			C	
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*				R	R						R			C	
1R-4, 20–21	4.70	A	M	B					F	F									F	
1R-CC, 16–21	8.53	A	G	B					F	F						R			F	
2R-CC, 7–12	12.78	A	G	B					R										F	
3R-2, 34–35	18.94	A	M–G	B					X	R									F	
3R-CC, 7–12	25.57	A	M–G	B					X										F	
4R-1, 25–26	26.75	A	M–G	R					R										F	
4R-CC, 6–11	34.94	A	M–G	B					X										F	
5R-1, 100–101	37.00	A	M–G	X					X	X										
5R-2, 25–26	37.75	A	M–G	X					R	R										
5R-2, 100–101	38.50	A	M–G	R–F					R	R						X				
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*				R	R						R			F	
5R-4, 100–101	41.50	A	G	B					X							X			R	
5R-5, 100–101	43.00	A	M–G	X–R					X										R	
5R-6, 100–101	44.50	A	M–G	R					R	R									X	
5R-7, 25–26	45.25	A	M	F–C					R										R	
5R-CC, 12–17	45.58	A	M–G	R					X							X			X	
6R-1, 100–101	46.40	A	M–G	B					R							R			F	
6R-2, 100–101	47.90	A	M–G	B					F	R									F	
6R-3, 100–101	49.40	A	M	X					R							R			R	
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*				R	R		R							F	
7R-1, 100–101	55.80	A	M–G	F					R										F	
7R-2, 100–101	57.30	A	M–G	F					R										F	
7R-3, 25–26	58.05	A	M	X–R					X										R	
7R-3, 100–101	58.80	A	M–G	R					R										F	
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*				R										F	
7R-5, 100–101	61.80	C	P–M	C					R	R									F	
7R-CC, 13–18	62.31	A	G	R		R			R										F	

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Denticulopsis crassa*	*Dentculopsis dimorpha* var. *areolata*	*Denticuolopsis dimorpha* var. *dimorpha*	*Denticuolopsis "hustedtii* var. *asper"*	*Denticulopsis hyalina*	*Denticulopsis maccollumii*	*Denticulopsis ovata*	*Denticulopsis praedimorpha* var. *praedimorpha*	*Denticulopsis simonsenii*	*Denticulopsis vulgaris*	*Diploneis* spp.	*Drepanotheca* spp.	*Entomoneis* sp.	*Entopyla* spp.	*Eucampia antarctica*	*Eucampia antarctica* var. *"twista"*
183-1138A-																					
1R-1, 70–71	0.70	A	M–G	B																C	
1R-2, 109–110	2.59	A	M–G	X																F	
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*															F	
1R-4, 20–21	4.70	A	M	B																F	
1R-CC, 16–21	8.53	A	G	B																F	
2R-CC, 7–12	12.78	A	G	B																R	
3R-2, 34–35	18.94	A	M–G	B																R	
3R-CC, 7–12	25.57	A	M–G	B																R	
4R-1, 25–26	26.75	A	M–G	R																R	
4R-CC, 6–11	34.94	A	M–G	B																	
5R-1, 100–101	37.00	A	M–G	X																X	
5R-2, 25–26	37.75	A	M–G	X																	
5R-2, 100–101	38.50	A	M–G	R–F																F	
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*																
5R-4, 100–101	41.50	A	G	B																	
5R-5, 100–101	43.00	A	M–G	X–R																	
5R-6, 100–101	44.50	A	M–G	R																X	
5R-7, 25–26	45.25	A	M	F–C																F	
5R-CC, 12–17	45.58	A	M–G	R																R	
6R-1, 100–101	46.40	A	M–G	B																	
6R-2, 100–101	47.90	A	M–G	B																	
6R-3, 100–101	49.40	A	M	X																R	
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*														X	R	
7R-1, 100–101	55.80	A	M–G	F																	
7R-2, 100–101	57.30	A	M–G	F																	
7R-3, 25–26	58.05	A	M	X–R																	
7R-3, 100–101	58.80	A	M–G	R																R	
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*															R	
7R-5, 100–101	61.80	C	P–M	C																R	
7R-CC, 13–18	62.31	A	G	R																R	

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Ethmodiscus* sp.	*Fragilariopsis arcula*	*Fragilariopsis aurica*	*Fragilariopsis barronii*	*Fragilariopsis* sp. cf. *F. barronii*	*Fragilariopsis clementia*	*Fragilariopsis curta*	*Fragilariopsis cylindrus*	*Fragilariopsis donahuensis*	*Fragilariopsis efferans*	*Fragilariopsis fossilis*	*Fragilariopsis heardensis*	*Fragilariopsis interfrigidaria*	*Fragilariopsis interfrigidaria-weaveri* (intermediate)	*Fragilariopsis januaria*
183-1138A-																				
1R-1, 70–71	0.70	A	M–G	B								R								
1R-2, 109–110	2.59	A	M–G	X								R								
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*							R								
1R-4, 20–21	4.70	A	M	B								R								
1R-CC, 16–21	8.53	A	G	B								R								
2R-CC, 7–12	12.78	A	G	B								R								
3R-2, 34–35	18.94	A	M–G	B																
3R-CC, 7–12	25.57	A	M–G	B																
4R-1, 25–26	26.75	A	M–G	R								R								
4R-CC, 6–11	34.94	A	M–G	B								R								
5R-1, 100–101	37.00	A	M–G	X								X								
5R-2, 25–26	37.75	A	M–G	X																
5R-2, 100–101	38.50	A	M–G	R–F								R								
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*							F								
5R-4, 100–101	41.50	A	G	B								X								
5R-5, 100–101	43.00	A	M–G	X–R																
5R-6, 100–101	44.50	A	M–G	R								R								
5R-7, 25–26	45.25	A	M	F–C								R						r		
5R-CC, 12–17	45.58	A	M–G	R					?			R								
6R-1, 100–101	46.40	A	M–G	B					?			R								
6R-2, 100–101	47.90	A	M–G	B					?			R								
6R-3, 100–101	49.40	A	M	X					F			R								
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*				F			R								
7R-1, 100–101	55.80	A	M–G	F					F											
7R-2, 100–101	57.30	A	M–G	F					F			R								
7R-3, 25–26	58.05	A	M	X–R					C			X								
7R-3, 100–101	58.80	A	M–G	R					C											
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*				A			X	X							
7R-5, 100–101	61.80	C	P–M	C					C			F								
7R-CC, 13–18	62.31	A	G	R					A			F								

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Fragilariopsis kerguelensis*	*Fragilariopsis lacrima*	*Fragilariopsis matuyamae*	*Fragilariopsis obliquecostata*	*Fragilariopsis* cf. *obliquecostata*	*Fragilariopsis praecurta*	*Fragilariopsis praeinterfrigidaria*	*Fragilariopsis praeinterfrigidaria-interfrigidaria* (intermediate)	*Fragilariopsis pusilla*	*Fragilariopsis pseudonana*	*Fragilariopsis rhombica*	*Fragilariopsis ritscheri*	*Fragilariopsis* cf. *ritscheri*	*Fragilariopsis separanda*	*Fragilariopsis weaveri*
183-1138A-																				
1R-1, 70–71	0.70	A	M–G	B		A										F			F	
1R-2, 109–110	2.59	A	M–G	X		A										R			F	
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*	A			R							R	R		F	
1R-4, 20–21	4.70	A	M	B		A			R							F	R		F	
1R-CC, 16–21	8.53	A	G	B		A			R							R	R		F	
2R-CC, 7–12	12.78	A	G	B		A			R							F	R		C	
3R-2, 34–35	18.94	A	M–G	B		A											R		F	
3R-CC, 7–12	25.57	A	M–G	B		A											R		F	
4R-1, 25–26	26.75	A	M–G	R		A												R	C	
4R-CC, 6–11	34.94	A	M–G	B		A			R						X	R		R	F	
5R-1, 100–101	37.00	A	M–G	X		C										X				
5R-2, 25–26	37.75	A	M–G	X		A													X	
5R-2, 100–101	38.50	A	M–G	R–F		C													X	
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*	C			X							R		X	R	
5R-4, 100–101	41.50	A	G	B		C													R	
5R-5, 100–101	43.00	A	M–G	X–R		C													F	
5R-6, 100–101	44.50	A	M–G	R		C										R			R	
5R-7, 25–26	45.25	A	M	F–C		C														
5R-CC, 12–17	45.58	A	M–G	R		A			R							R				
6R-1, 100–101	46.40	A	M–G	B		A														
6R-2, 100–101	47.90	A	M–G	B		A														
6R-3, 100–101	49.40	A	M	X		C												R		
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*	C														
7R-1, 100–101	55.80	A	M–G	F		C												R		
7R-2, 100–101	57.30	A	M–G	F		A														
7R-3, 25–26	58.05	A	M	X–R		C												R		
7R-3, 100–101	58.80	A	M–G	R		C														
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*	C												R		
7R-5, 100–101	61.80	C	P–M	C		C		X		R								R		
7R-CC, 13–18	62.31	A	G	R		F		R										R		

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Hemidsicus* sp. cf. *H. cuneiformis*	*Hemidiscus karstenii*	*Hemidiscus karstenii* f. 1 [Ciesielski, 1983]	*Hemidiscus triangularus*	*Hemiaulus incisus*	*Hemiaulus* spp.	*Hyalodiscus radiatus*	*Ikebea* sp. B [Scherer et al., 2000]	*Isthmia* sp.	*Lithodesmium minisculum*	*Navicula directa*	*Navicula* spp.	*Neobrunnia mirabilis*	*Nitzschia denticuloides*	*Nitzschia grossepunctata*
183-1138A-																				
1R-1, 70–71	0.70	A	M–G	B																
1R-2, 109–110	2.59	A	M–G	X																
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*															
1R-4, 20–21	4.70	A	M	B																
1R-CC, 16–21	8.53	A	G	B			F													
2R-CC, 7–12	12.78	A	G	B			R													
3R-2, 34–35	18.94	A	M–G	B																
3R-CC, 7–12	25.57	A	M–G	B																
4R-1, 25–26	26.75	A	M–G	R																
4R-CC, 6–11	34.94	A	M–G	B																
5R-1, 100–101	37.00	A	M–G	X																
5R-2, 25–26	37.75	A	M–G	X																
5R-2, 100–101	38.50	A	M–G	R–F																
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*											X				
5R-4, 100–101	41.50	A	G	B																
5R-5, 100–101	43.00	A	M–G	X–R																
5R-6, 100–101	44.50	A	M–G	R																
5R-7, 25–26	45.25	A	M	F–C																
5R-CC, 12–17	45.58	A	M–G	R													X			
6R-1, 100–101	46.40	A	M–G	B																
6R-2, 100–101	47.90	A	M–G	B																
6R-3, 100–101	49.40	A	M	X																
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*															
7R-1, 100–101	55.80	A	M–G	F																
7R-2, 100–101	57.30	A	M–G	F								X								
7R-3, 25–26	58.05	A	M	X–R																
7R-3, 100–101	58.80	A	M–G	R																
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*															
7R-5, 100–101	61.80	C	P–M	C																
7R-CC, 13–18	62.31	A	G	R																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Nitzschia maleinterpretaria*	*Nitzschia miocenica*	*Nitzschia panduriformis*	*Nitzschia reinholdii*	*Nitzschia* sp. 17 [Schrader, 1976]	*Paralia sulcata*	*Porosira pseudodentiaulata*	*Proboscia* spp.	*Radialiplicata clavigera*	*Psammodictyon* sp.	*Raphidodiscus marylandicus*	*Rhabdonema japonicum* group	*Rhabdonema/Grammatophora* spp.	*Rhizosolenia costata*	*Rhizosolenia hebetata* group
183-1138A-																				
1R-1, 70–71	0.70	A	M–G	B				R			X				R					R
1R-2, 109–110	2.59	A	M–G	X				R			R				R					R
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*			R			X				R					R
1R-4, 20–21	4.70	A	M	B							R									F
1R-CC, 16–21	8.53	A	G	B				R			R				R					R
2R-CC, 7–12	12.78	A	G	B				X			R				X					
3R-2, 34–35	18.94	A	M–G	B							F									R
3R-CC, 7–12	25.57	A	M–G	B				X			R				X					R
4R-1, 25–26	26.75	A	M–G	R				X			F				X					R
4R-CC, 6–11	34.94	A	M–G	B							R									R
5R-1, 100–101	37.00	A	M–G	X							R									R
5R-2, 25–26	37.75	A	M–G	X							X									
5R-2, 100–101	38.50	A	M–G	R–F							R									R
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*						F									R
5R-4, 100–101	41.50	A	G	B							F									R
5R-5, 100–101	43.00	A	M–G	X–R							F									R
5R-6, 100–101	44.50	A	M–G	R							F									R
5R-7, 25–26	45.25	A	M	F–C							F									R
5R-CC, 12–17	45.58	A	M–G	R							F									R
6R-1, 100–101	46.40	A	M–G	B							F									R
6R-2, 100–101	47.90	A	M–G	B							F									X
6R-3, 100–101	49.40	A	M	X							F									
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*						F									R
7R-1, 100–101	55.80	A	M–G	F							R									R
7R-2, 100–101	57.30	A	M–G	F							F		R							R
7R-3, 25–26	58.05	A	M	X–R							F		R							R
7R-3, 100–101	58.80	A	M–G	R							F						X			R
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*						F									R
7R-5, 100–101	61.80	C	P–M	C							F	X	X							R
7R-CC, 13–18	62.31	A	G	R							F									R

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Rhizosolenia hebetata* f. *hiemalis* [sensu Schrader, 1976]	*Rhizosolenia styliformis* group	*Rhizosolenia* sp. cf. R. *sima* f. *silicea*	*Rocella gelida*	*Rocella gelida* var. *schraderi*	*Rocella praenitida*	*Rocella vigilans* var. B [Harwood & Maruyama, 1992]	*Rouxia antarctica*	*Rouxia californica*	*Rouxia heteropolara*	*Rouxia isopolica*	*Rouxia leventerae*	*Rouxia naviculoides*	*Rouxia peragalli* [sensu Baldauf & Barron, 1991]	*Rouxia* sp. 1
183-1138A-																				
1R-1, 70–71	0.70	A	M–G	B			X													
1R-2, 109–110	2.59	A	M–G	X			X	X												
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*		R	R												
1R-4, 20–21	4.70	A	M	B			R	R												
1R-CC, 16–21	8.53	A	G	B			R													
2R-CC, 7–12	12.78	A	G	B			R													
3R-2, 34–35	18.94	A	M–G	B																
3R-CC, 7–12	25.57	A	M–G	B			X									F				
4R-1, 25–26	26.75	A	M–G	R												F				
4R-CC, 6–11	34.94	A	M–G	B			R						R			R	X			
5R-1, 100–101	37.00	A	M–G	X																
5R-2, 25–26	37.75	A	M–G	X																
5R-2, 100–101	38.50	A	M–G	R–F			X													
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*		X						X							
5R-4, 100–101	41.50	A	G	B																
5R-5, 100–101	43.00	A	M–G	X–R																
5R-6, 100–101	44.50	A	M–G	R									R							
5R-7, 25–26	45.25	A	M	F–C									F							
5R-CC, 12–17	45.58	A	M–G	R									F							
6R-1, 100–101	46.40	A	M–G	B			X						F							
6R-2, 100–101	47.90	A	M–G	B			X						F							
6R-3, 100–101	49.40	A	M	X			X	X					R							
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*								R							
7R-1, 100–101	55.80	A	M–G	F									C							
7R-2, 100–101	57.30	A	M–G	F			X						C							
7R-3, 25–26	58.05	A	M	X–R									F							
7R-3, 100–101	58.80	A	M–G	R			R						F							
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*		X						F							
7R-5, 100–101	61.80	C	P–M	C			R	X					F							
7R-CC, 13–18	62.31	A	G	R			R						C							X

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Rouxia* spp.	*Spumorbis annulifer*	*Stellarima microtrias*	*Stellarima stellaris*	*Stephanopyxis* spp.	*Synedropsis* sp. B [Scherer et al., 2000]	*Thalassionema nitzschioides*	*Thalassionema nitzschioides* var. *parvum*	*Thalassionema nitzschioides* var. 1 [1138A]	*Thalassiosira antarctica*	*Thalassiosira* sp. cf. *T. antarctica*	*Thalassiosira complicata*	*Thalassiosira* sp. cf. *T. eccentrica*	*Thalassiosira elliptipora*	*Thalassiosira fasciculata*
183-1138A-																				
1R-1, 70–71	0.70	A	M–G	B											R					
1R-2, 109–110	2.59	A	M–G	X								X			R					
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*							X			R					
1R-4, 20–21	4.70	A	M	B								R			X					
1R-CC, 16–21	8.53	A	G	B						X		R			R					
2R-CC, 7–12	12.78	A	G	B								R	R		X					
3R-2, 34–35	18.94	A	M–G	B								X								
3R-CC, 7–12	25.57	A	M–G	B								R			R					
4R-1, 25–26	26.75	A	M–G	R								R			X				R	
4R-CC, 6–11	34.94	A	M–G	B								R								
5R-1, 100–101	37.00	A	M–G	X								F								X
5R-2, 25–26	37.75	A	M–G	X								R								
5R-2, 100–101	38.50	A	M–G	R–F						X		R								
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*							R			X				X	
5R-4, 100–101	41.50	A	G	B								X								
5R-5, 100–101	43.00	A	M–G	X–R								R	R							
5R-6, 100–101	44.50	A	M–G	R								R	X							
5R-7, 25–26	45.25	A	M	F–C								F	X							R
5R-CC, 12–17	45.58	A	M–G	R								R								
6R-1, 100–101	46.40	A	M–G	B								F								
6R-2, 100–101	47.90	A	M–G	B				X				C								
6R-3, 100–101	49.40	A	M	X								F								
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*							C								
7R-1, 100–101	55.80	A	M–G	F								F								
7R-2, 100–101	57.30	A	M–G	F								C								X
7R-3, 25–26	58.05	A	M	X–R								F								
7R-3, 100–101	58.80	A	M–G	R								F								
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*							F								
7R-5, 100–101	61.80	C	P–M	C							X	F								
7R-CC, 13–18	62.31	A	G	R								F								

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Thalassiosira gracilis*	*Thalassiosira insigna*	*Thalassiosira inura*	*Thalassiosira jacksonii*	*Thalassiosira kolbei*	*Thalassiosira lentiginosa*	*Thalassiosira lentiginosa* var. *ovalis*	*Thalassiosira miocenica*	*Thalassiosira nansenii*	*Thalassiosira oliverana*	*Thalassiosira oliverana* var. *sparsa*	*Thalassiosira praefraga*	*Thalassiosira ritscheri*	*Thalassiosira striata*	*Thalassiosira tetraoestrupii* group
183-1138A-																				
1R-1, 70–71	0.70	A	M–G	B		F					C				C					R
1R-2, 109–110	2.59	A	M–G	X		F					F				F					R
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*	F					F				F					R
1R-4, 20–21	4.70	A	M	B		F					C				F			X		X
1R-CC, 16–21	8.53	A	G	B		F					C				F					R
2R-CC, 7–12	12.78	A	G	B		R					C				F					R
3R-2, 34–35	18.94	A	M–G	B		R					F				F					R
3R-CC, 7–12	25.57	A	M–G	B		R					C				F					R
4R-1, 25–26	26.75	A	M–G	R		F					F				F					X
4R-CC, 6–11	34.94	A	M–G	B		F					C				F					R
5R-1, 100–101	37.00	A	M–G	X							F				F					F
5R-2, 25–26	37.75	A	M–G	X							F									X
5R-2, 100–101	38.50	A	M–G	R–F		R					C				R					F
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*	X					C				F					F
5R-4, 100–101	41.50	A	G	B		X					F				C					F
5R-5, 100–101	43.00	A	M–G	X–R							F				F					F
5R-6, 100–101	44.50	A	M–G	R		R					F				F					F
5R-7, 25–26	45.25	A	M	F–C		R					C				C					F
5R-CC, 12–17	45.58	A	M–G	R		R					A				C					R
6R-1, 100–101	46.40	A	M–G	B		X					F				C					F
6R-2, 100–101	47.90	A	M–G	B		R					F				F					F
6R-3, 100–101	49.40	A	M	X		X					F				F					R
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*	R					F				F					F
7R-1, 100–101	55.80	A	M–G	F							C				C					F
7R-2, 100–101	57.30	A	M–G	F		R					F				F					R
7R-3, 25–26	58.05	A	M	X–R		X				R	F				F					F
7R-3, 100–101	58.80	A	M–G	R		?				F	F				F					F
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*						F				C					F
7R-5, 100–101	61.80	C	P–M	C						F	F				F					F
7R-CC, 13–18	62.31	A	G	R		?				F	F				F					R

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Thalassiosira tetraoestrupii* var. *reimeri*	*Thalassiosira torokina* ("early" form)	*Thalassiosira trifulta*	*Thalassiosira tumida*	*Thalassiosira vulnifica*	*Thalassiosira* sp. 1 [1138A]	*Thalassiosira* spp.	*Trichotoxon/Thalassiothrix* spp.	*Trinacria excavata*	Ebridians	*Ammodochium rectangulare*	*Ebriopsis cornuta*	*Falsebria ambigua*	*Pseudammodochium sphericum* (single skeleton)
183-1138A-																			
1R-1, 70–71	0.70	A	M–G	B				X	R				F						
1R-2, 109–110	2.59	A	M–G	X									F						
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*								F						
1R-4, 20–21	4.70	A	M	B					X				F						
1R-CC, 16–21	8.53	A	G	B					R				F						
2R-CC, 7–12	12.78	A	G	B									F						
3R-2, 34–35	18.94	A	M–G	B					X				F						
3R-CC, 7–12	25.57	A	M–G	B									F						
4R-1, 25–26	26.75	A	M–G	R					X				F						
4R-CC, 6–11	34.94	A	M–G	B					X				F						
5R-1, 100–101	37.00	A	M–G	X					R	r			F						
5R-2, 25–26	37.75	A	M–G	X									F						
5R-2, 100–101	38.50	A	M–G	R–F					R				F						
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*								F						
5R-4, 100–101	41.50	A	G	B									F						
5R-5, 100–101	43.00	A	M–G	X–R		?							R						
5R-6, 100–101	44.50	A	M–G	R		?							F						
5R-7, 25–26	45.25	A	M	F–C									F						
5R-CC, 12–17	45.58	A	M–G	R					R				F						
6R-1, 100–101	46.40	A	M–G	B					X				X						
6R-2, 100–101	47.90	A	M–G	B		?							R						
6R-3, 100–101	49.40	A	M	X					X				X						
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*				F		R		R						
7R-1, 100–101	55.80	A	M–G	F		F				r	R		F						
7R-2, 100–101	57.30	A	M–G	F		F			R		R		F						
7R-3, 25–26	58.05	A	M	X–R		R			R		X		F						
7R-3, 100–101	58.80	A	M–G	R		F					X		F						
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*	F					X		F						
7R-5, 100–101	61.80	C	P–M	C		F							F						
7R-CC, 13–18	62.31	A	G	R		F				r			F						

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	Endoskeletal dinoflagellates	*Actiniscus pentasterias*	*Carduifolia gracilis*	*Foliactiniscus mirabilis*
183-1138A-									
1R-1, 70–71	0.70	A	M–G	B			X		
1R-2, 109–110	2.59	A	M–G	X			X		
1R-3, 69–70	3.69	A	M	X	*Thalassiosira lentiginosa*		X		
1R-4, 20–21	4.70	A	M	B					
1R-CC, 16–21	8.53	A	G	B			R		
2R-CC, 7–12	12.78	A	G	B			X		
3R-2, 34–35	18.94	A	M–G	B			X		
3R-CC, 7–12	25.57	A	M–G	B			R		
4R-1, 25–26	26.75	A	M–G	R			X		
4R-CC, 6–11	34.94	A	M–G	B			X		
5R-1, 100–101	37.00	A	M–G	X					
5R-2, 25–26	37.75	A	M–G	X			X		
5R-2, 100–101	38.50	A	M–G	R–F			X		
5R-3, 100–101	40.00	A	M–G	F	*Actinocyclus ingens*		X		
5R-4, 100–101	41.50	A	G	B			X		
5R-5, 100–101	43.00	A	M–G	X–R					
5R-6, 100–101	44.50	A	M–G	R			X		
5R-7, 25–26	45.25	A	M	F–C			X		
5R-CC, 12–17	45.58	A	M–G	R			R		
6R-1, 100–101	46.40	A	M–G	B					
6R-2, 100–101	47.90	A	M–G	B					
6R-3, 100–101	49.40	A	M	X			R		
6R-CC, 12–17	49.65	A	M–G	F	*Fragilariopsis kerguelensis*		R		
7R-1, 100–101	55.80	A	M–G	F					
7R-2, 100–101	57.30	A	M–G	F					
7R-3, 25–26	58.05	A	M	X–R			X		
7R-3, 100–101	58.80	A	M–G	R					
7R-4, 100–101	60.30	A	M–G	F	*Thalassiosira kolbei*				
7R-5, 100–101	61.80	C	P–M	C					
7R-CC, 13–18	62.31	A	G	R			R		

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	Diatoms	*Actinocyclus actinochilus*	*Actinocyclus curvatulus*	*Actinocyclus dimorphus*	*Actinocyclus fasciculatus*	*Actinocyclus ingens*	*Actinocyclus ingens* var. *nodus*	*Actinocyclus ingens* var. *ovalis*	*Actinocyclus ingens* var. 1 [1138A]	*Actinocyclus ingens* var. 2 [1138A]	*Actinocyclus karstenii*	*Actinocyclus maccollumii*	*Actinocyclus* spp.	*Actinoptychus senarius*	*Arachnoidiscus* spp.
8R-1, 100–101	65.30	A	M–G	X						R						F				
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*				X							X				X
8R-3, 100–101	68.30	A	M–G	A												R				
8R-4, 100–101	69.80	C	P–M	F–C												F				
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*		X			X	F					R	X	X		
8R-6, 100–101	72.80	A	M	C–A							F					R		R		
8R-CC, 10–15	74.04	C	P–M	R					X		R					R	R			
9R-1, 100–101	74.70	A	M–G	A							R							R		
9R-2, 100–101	76.20	A	M	C–A							F									
9R-3, 100–101	77.70	A	M–G	C–A							F							X		
9R-CC, 14–19	79.21	A	G	C–A							F									
10R-1, 25–26	83.35	A	M–G	C–A																
10R-1, 100–101	84.10	A	M–G	C–A							X									
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*															
10R-2, 100–101	85.60	A	M–G	R–F												R				
10R-3, 100–101	87.10	A	M–G	X												X		R		
10R-CC, 13–18	87.53	A	M–G	X							R							X		
11R-1, 100–101	93.70	A	M–G	R–F							R									
11R-2, 100–101	95.20	A	M–G	R							R									
11R-3, 100–101	96.70	A	M–G	F							X									
11R-4, 100–101	98.20	A	M–G	F							X									
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*															
11R-6, 100–101	101.20	A	M–G	R–F							X									
11R-CC, 9–14	102.39	A	M–G	R							R							R		
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*						R					R				
12R-2, 100–101	104.80	A	M–G	F									r			F				
12R-3, 100–101	106.30	A	M	A							X		R							
12R-CC, 23–28	107.03	C	M	A							R		F							
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*						F		X			X			X	
13R-2, 100–101	114.50	A	M	A									F							
13R-3, 100–101	116.00	A	M–G	A							F		F							
13R-4, 100–101	117.50	C	M	A							F		F			R				

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Araniscus lewisianus*	*Asterolampra tela*	*Asteromphalus kennettii*	*Asteromphalus oligocenicus*	*Asteromphalus parvulus/hookeri*	*Asteromphalus symmetricus*	*Azpeitia gombosi*	*Azpeitia harwoodii*	*Azpeitia tabularis*	*Bogorovia gombosii*	*Bogorovia veniamini*	*Cavitatus jouseanus*	*Cavitatus miocenicus*	*Cavitatus rectus*	*Cestodiscus pulchellus*
8R-1, 100–101	65.30	A	M–G	X						R										
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*					R				X						
8R-3, 100–101	68.30	A	M–G	A						R										
8R-4, 100–101	69.80	C	P–M	F–C						R										
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*					R										
8R-6, 100–101	72.80	A	M	C–A						R										
8R-CC, 10–15	74.04	C	P–M	R						R										
9R-1, 100–101	74.70	A	M–G	A										X						
9R-2, 100–101	76.20	A	M	C–A						R										
9R-3, 100–101	77.70	A	M–G	C–A																
9R-CC, 14–19	79.21	A	G	C–A																
10R-1, 25–26	83.35	A	M–G	C–A										X						
10R-1, 100–101	84.10	A	M–G	C–A						X										
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*					R										
10R-2, 100–101	85.60	A	M–G	R–F										R						
10R-3, 100–101	87.10	A	M–G	X																
10R-CC, 13–18	87.53	A	M–G	X																
11R-1, 100–101	93.70	A	M–G	R–F						X			R	R						
11R-2, 100–101	95.20	A	M–G	R									R	R						
11R-3, 100–101	96.70	A	M–G	F									F	R						
11R-4, 100–101	98.20	A	M–G	F									F	R						
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*								F							
11R-6, 100–101	101.20	A	M–G	R–F									C	R						
11R-CC, 9–14	102.39	A	M–G	R									C	R						
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*									R						
12R-2, 100–101	104.80	A	M–G	F																
12R-3, 100–101	106.30	A	M	A																
12R-CC, 23–28	107.03	C	M	A																
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*									F						
13R-2, 100–101	114.50	A	M	A										F						
13R-3, 100–101	116.00	A	M–G	A										F						
13R-4, 100–101	117.50	C	M	A										F						

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Chaetoceros bulbosum*	*Chaetoceros lorenzianus*	*Chaetoceros* sp. A [Harwood & Maruyama, 1992]	*Chaetoceros* spp. (spores)	*Chaetoceros* spp. (small vegetative cells)	*Cestodiscus* spp.	*Cocconeis* spp.	*Corethron criophilum*	*"Coscinodiscus" rhombicus*	*Coscinodiscus marginatus*	*Coscinodiscus* spp.	*Crucidenticula ikebei*	*Crucidenticula nicobarica*	*Dactyliosolen antarcticus* (girdle band ends)	*"Denticula"* sp. cf. *D. norwegica*
8R-1, 100–101	65.30	A	M–G	X					F			R							F	
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*				F	F			X						R	
8R-3, 100–101	68.30	A	M–G	A					F	F		X	X						F	
8R-4, 100–101	69.80	C	P–M	F–C					F	F		R	R			R			R	
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*				F	R		R				X			C	
8R-6, 100–101	72.80	A	M	C–A					R	R		X			R	R			F	
8R-CC, 10–15	74.04	C	P–M	R					R				X			R			F	
9R-1, 100–101	74.70	A	M–G	A					F			R							F	
9R-2, 100–101	76.20	A	M	C–A					F				X			X			C	
9R-3, 100–101	77.70	A	M–G	C–A					F	F		X							F	
9R-CC, 14–19	79.21	A	G	C–A					F	R						X			F	
10R-1, 25–26	83.35	A	M–G	C–A			R		F	R									R	
10R-1, 100–101	84.10	A	M–G	C–A					F										C	
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*				R	F									F	
10R-2, 100–101	85.60	A	M–G	R–F					R										F	
10R-3, 100–101	87.10	A	M–G	X					R			X				X			C	
10R-CC, 13–18	87.53	A	M–G	X					R			X				R			R	
11R-1, 100–101	93.70	A	M–G	R–F					R			X			F	R			C	
11R-2, 100–101	95.20	A	M–G	R					R						F	R			C	
11R-3, 100–101	96.70	A	M–G	F					F						F	F			F	
11R-4, 100–101	98.20	A	M–G	F					X			X			F	R			F	
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*										F	R			C	
11R-6, 100–101	101.20	A	M–G	R–F			X		X						F	R			F	
11R-CC, 9–14	102.39	A	M–G	R			X		R				R		F	F			C	
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*				F	F			X		R	F			F	
12R-2, 100–101	104.80	A	M–G	F					F	X			X			R			F	
12R-3, 100–101	106.30	A	M	A					X	X					F	R			F	
12R-CC, 23–28	107.03	C	M	A					R			X			F	X			F	
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*				R	R					F				F	
13R-2, 100–101	114.50	A	M	A					F	F		R			R	F			F	
13R-3, 100–101	116.00	A	M–G	A					F			R			R	F			R	
13R-4, 100–101	117.50	C	M	A					F	F					R	F			F	

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Denticulopsis crassa*	*Dentculopsis dimorpha* var. *areolata*	*Denticuolopsis dimorpha* var. *dimorpha*	*Denticuolopsis "hustedtii* var. *asper"*	*Denticulopsis hyalina*	*Denticulopsis maccollumii*	*Denticulopsis ovata*	*Denticulopsis praedimorpha* var. *praedimorpha*	*Denticulopsis simonsenii*	*Denticulopsis vulgaris*	*Diploneis* spp.	*Drepanotheca* spp.	*Entomoneis* sp.	*Entopyla* spp.	*Eucampia antarctica*	*Eucampia antarctica* var. *"twista"*
8R-1, 100–101	65.30	A	M–G	X													R				
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*												X				
8R-3, 100–101	68.30	A	M–G	A																	
8R-4, 100–101	69.80	C	P–M	F–C													R			F	
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*														X	R	
8R-6, 100–101	72.80	A	M	C–A													X			R	
8R-CC, 10–15	74.04	C	P–M	R																R	
9R-1, 100–101	74.70	A	M–G	A																R	
9R-2, 100–101	76.20	A	M	C–A														X		F	
9R-3, 100–101	77.70	A	M–G	C–A														X		F	
9R-CC, 14–19	79.21	A	G	C–A														X		R	
10R-1, 25–26	83.35	A	M–G	C–A														X			
10R-1, 100–101	84.10	A	M–G	C–A										r							
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*														X		
10R-2, 100–101	85.60	A	M–G	R–F													X				
10R-3, 100–101	87.10	A	M–G	X													X				
10R-CC, 13–18	87.53	A	M–G	X																	
11R-1, 100–101	93.70	A	M–G	R–F																	
11R-2, 100–101	95.20	A	M–G	R																X	
11R-3, 100–101	96.70	A	M–G	F																	
11R-4, 100–101	98.20	A	M–G	F																	
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*												X				
11R-6, 100–101	101.20	A	M–G	R–F																	
11R-CC, 9–14	102.39	A	M–G	R																R	
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*															R	
12R-2, 100–101	104.80	A	M–G	F																F	
12R-3, 100–101	106.30	A	M	A																	
12R-CC, 23–28	107.03	C	M	A																	
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*																
13R-2, 100–101	114.50	A	M	A															X		
13R-3, 100–101	116.00	A	M–G	A																	
13R-4, 100–101	117.50	C	M	A												X					

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Denticulopsis crassa*	*Dentculopsis dimorpha* var. *areolata*	*Denticuolopsis dimorpha* var. *dimorpha*	*Denticuolopsis "hustedtii* var. *asper"*	*Denticulopsis hyalina*	*Denticulopsis maccollumii*	*Denticulopsis ovata*	*Denticulopsis praedimorpha* var. *praedimorpha*	*Denticulopsis simonsenii*	*Denticulopsis vulgaris*	*Diploneis* spp.	*Drepanotheca* spp.	*Entomoneis* sp.	*Entopyla* spp.	*Eucampia antarctica*
8R-1, 100–101	65.30	A	M–G	X					F			C	X							
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*				C									R		
8R-3, 100–101	68.30	A	M–G	A					C			X						F		
8R-4, 100–101	69.80	C	P–M	F–C					C								R	F		
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*				C			X					R–F	F		
8R-6, 100–101	72.80	A	M	C–A					F			X					R	X		
8R-CC, 10–15	74.04	C	P–M	R					C			R	?				R	R		
9R-1, 100–101	74.70	A	M–G	A					F									R	R	
9R-2, 100–101	76.20	A	M	C–A					C									F		
9R-3, 100–101	77.70	A	M–G	C–A					C									R		
9R-CC, 14–19	79.21	A	G	C–A					C									F	F	
10R-1, 25–26	83.35	A	M–G	C–A					C									C	F	
10R-1, 100–101	84.10	A	M–G	C–A					C									A	R	
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*				C									C	R	
10R-2, 100–101	85.60	A	M–G	R–F					C									C		
10R-3, 100–101	87.10	A	M–G	X					A									A		
10R-CC, 13–18	87.53	A	M–G	X					C									C		
11R-1, 100–101	93.70	A	M–G	R–F					C									C		
11R-2, 100–101	95.20	A	M–G	R					C		X							F		
11R-3, 100–101	96.70	A	M–G	F					C		X							R		
11R-4, 100–101	98.20	A	M–G	F					C		X									
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*				F		X									
11R-6, 100–101	101.20	A	M–G	R–F					C											
11R-CC, 9–14	102.39	A	M–G	R					C											
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*		R	R		X	R									
12R-2, 100–101	104.80	A	M–G	F			R	F			X									
12R-3, 100–101	106.30	A	M	A				X						X						R
12R-CC, 23–28	107.03	C	M	A			X	R												R
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*			X						X						
13R-2, 100–101	114.50	A	M	A																
13R-3, 100–101	116.00	A	M–G	A														F		
13R-4, 100–101	117.50	C	M	A										R						

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Fragilariopsis kerguelensis*	*Fragilariopsis lacrima*	*Fragilariopsis matuyamae*	*Fragilariopsis obliquecostata*	*Fragilariopsis* cf. *obliquecostata*	*Fragilariopsis praecurta*	*Fragilariopsis praeinterfrigidaria*	*Fragilariopsis praeinterfrigidaria-interfrigidaria* (intermediate)	*Fragilariopsis pusilla*	*Fragilariopsis pseudonana*	*Fragilariopsis rhombica*	*Fragilariopsis ritscheri*	*Fragilariopsis* cf. *ritscheri*	*Fragilariopsis separanda*	*Fragilariopsis weaveri*
8R-1, 100–101	65.30	A	M–G	X		F		R		F								F		
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*	F				X										
8R-3, 100–101	68.30	A	M–G	A		C				X										
8R-4, 100–101	69.80	C	P–M	F–C		R														
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*	R				R								X		X
8R-6, 100–101	72.80	A	M	C–A		R												X		X
8R-CC, 10–15	74.04	C	P–M	R						R								F		F
9R-1, 100–101	74.70	A	M–G	A		R												X		F
9R-2, 100–101	76.20	A	M	C–A		R														C
9R-3, 100–101	77.70	A	M–G	C–A						X										C
9R-CC, 14–19	79.21	A	G	C–A														R		F
10R-1, 25–26	83.35	A	M–G	C–A									R							X
10R-1, 100–101	84.10	A	M–G	C–A									X							
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*								R							
10R-2, 100–101	85.60	A	M–G	R–F									X							
10R-3, 100–101	87.10	A	M–G	X								X	R							
10R-CC, 13–18	87.53	A	M–G	X								R	R							
11R-1, 100–101	93.70	A	M–G	R–F								R	F							
11R-2, 100–101	95.20	A	M–G	R								R	F							
11R-3, 100–101	96.70	A	M–G	F								F	F							
11R-4, 100–101	98.20	A	M–G	F								F	F							
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*							C	R		R					
11R-6, 100–101	101.20	A	M–G	R–F								C	F							
11R-CC, 9–14	102.39	A	M–G	R								C	R							
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*							F						?		
12R-2, 100–101	104.80	A	M–G	F			X				X	F								
12R-3, 100–101	106.30	A	M	A							R									
12R-CC, 23–28	107.03	C	M	A							R			R						
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*							?								
13R-2, 100–101	114.50	A	M	A							X	?								
13R-3, 100–101	116.00	A	M–G	A								?		R						
13R-4, 100–101	117.50	C	M	A								?		F						

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Hemidsicus* sp. cf. *H. cuneiformis*	*Hemidiscus karstenii*	*Hemidiscus karstenii* f. 1 [Ciesielski, 1983]	*Hemidiscus triangularus*	*Hemiaulus incisus*	*Hemiaulus* spp.	*Hyalodiscus radiatus*	*Ikebea* sp. B [Scherer et al., 2000]	*Isthmia* sp.	*Lithodesmium minisculum*	*Navicula directa*	*Navicula* spp.	*Neobrunnia mirabilis*	*Nitzschia denticuloides*	*Nitzschia grossepunctata*
8R-1, 100–101	65.30	A	M–G	X																
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*												R			
8R-3, 100–101	68.30	A	M–G	A																
8R-4, 100–101	69.80	C	P–M	F–C																
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*															
8R-6, 100–101	72.80	A	M	C–A																
8R-CC, 10–15	74.04	C	P–M	R																
9R-1, 100–101	74.70	A	M–G	A			A													
9R-2, 100–101	76.20	A	M	C–A			X													
9R-3, 100–101	77.70	A	M–G	C–A																
9R-CC, 14–19	79.21	A	G	C–A																
10R-1, 25–26	83.35	A	M–G	C–A			F													
10R-1, 100–101	84.10	A	M–G	C–A			F													
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*		F													
10R-2, 100–101	85.60	A	M–G	R–F			F													
10R-3, 100–101	87.10	A	M–G	X			F													
10R-CC, 13–18	87.53	A	M–G	X			F													
11R-1, 100–101	93.70	A	M–G	R–F			R													
11R-2, 100–101	95.20	A	M–G	R			R													
11R-3, 100–101	96.70	A	M–G	F		X	F													
11R-4, 100–101	98.20	A	M–G	F																
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*															
11R-6, 100–101	101.20	A	M–G	R–F																
11R-CC, 9–14	102.39	A	M–G	R								X		X						
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*		R													
12R-2, 100–101	104.80	A	M–G	F			R	F												
12R-3, 100–101	106.30	A	M	A			R	R									X			
12R-CC, 23–28	107.03	C	M	A			X	R				X					X			
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*		F	R	F									X		
13R-2, 100–101	114.50	A	M	A			X	R	F											
13R-3, 100–101	116.00	A	M–G	A			R	R	R											
13R-4, 100–101	117.50	C	M	A				X	F											

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Nitzschia maleinterpretaria*	*Nitzschia miocenica*	*Nitzschia panduriformis*	*Nitzschia reinholdii*	*Nitzschia* sp. 17 [Schrader, 1976]	*Paralia sulcata*	*Porosira pseudodenticulata*	*Proboscia* spp.	*Radialiplicata clavigera*	*Psammodictyon* sp.	*Raphidodiscus marylandicus*	*Rhabdonema japonicum* group	*Rhabdonema/Grammatophora* spp.	*Rhizosolenia costata*	*Rhizosolenia hebetata* group
8R-1, 100–101	65.30	A	M–G	X							F									
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*						C				X					
8R-3, 100–101	68.30	A	M–G	A							C									X
8R-4, 100–101	69.80	C	P–M	F–C							F									
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*						F			X						R
8R-6, 100–101	72.80	A	M	C–A							C			R						
8R-CC, 10–15	74.04	C	P–M	R							F									
9R-1, 100–101	74.70	A	M–G	A					R		F									
9R-2, 100–101	76.20	A	M	C–A							F							R		
9R-3, 100–101	77.70	A	M–G	C–A							F			X	X					
9R-CC, 14–19	79.21	A	G	C–A							F			R						R
10R-1, 25–26	83.35	A	M–G	C–A							F				X					
10R-1, 100–101	84.10	A	M–G	C–A							F									R
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*						F				X					R
10R-2, 100–101	85.60	A	M–G	R–F				X			F				R					X
10R-3, 100–101	87.10	A	M–G	X							F									X
10R-CC, 13–18	87.53	A	M–G	X				X			R				X					R
11R-1, 100–101	93.70	A	M–G	R–F				X	R		F		F							X
11R-2, 100–101	95.20	A	M–G	R							F		F							
11R-3, 100–101	96.70	A	M–G	F				X	R		F		F							
11R-4, 100–101	98.20	A	M–G	F				X	F		F		F							R
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*				F		R		F–C							R
11R-6, 100–101	101.20	A	M–G	R–F					F		R		F							
11R-CC, 9–14	102.39	A	M–G	R				X	F		R		R		X				R	X
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*				F		F		F						F	
12R-2, 100–101	104.80	A	M–G	F					F				F						R	R
12R-3, 100–101	106.30	A	M	A			X		F		F		R							R
12R-CC, 23–28	107.03	C	M	A			X		C		F		R							
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*		F		F		F									R
13R-2, 100–101	114.50	A	M	A			F				R		X							R
13R-3, 100–101	116.00	A	M–G	A			F		R		F		R							R
13R-4, 100–101	117.50	C	M	A			F		R		F		R							F

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Rhizosolenia hebetata* f. *hiemalis* [sensu Schrader, 1976]	*Rhizosolenia styliformis* group	*Rhizosolenia* sp. cf. R. *sima* f. *silicea*	*Rocella gelida*	*Rocella gelida* var. *schraderi*	*Rocella praenitida*	*Rocella vigilans* var. B [Harwood & Maruyama, 1992]	*Rouxia antarctica*	*Rouxia californica*	*Rouxia heteropolara*	*Rouxia isopolica*	*Rouxia leventerae*	*Rouxia naviculoides*	*Rouxia peragalli* [sensu Baldauf & Barron, 1991]	*Rouxia* sp. 1
8R-1, 100–101	65.30	A	M–G	X			R	R					F				?			
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*		R						F							
8R-3, 100–101	68.30	A	M–G	A			R						F							X
8R-4, 100–101	69.80	C	P–M	F–C			X						R							
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*		R	X					R							
8R-6, 100–101	72.80	A	M	C–A			X	R					R			X				
8R-CC, 10–15	74.04	C	P–M	R			R						R							R
9R-1, 100–101	74.70	A	M–G	A			R													
9R-2, 100–101	76.20	A	M	C–A																
9R-3, 100–101	77.70	A	M–G	C–A			F													
9R-CC, 14–19	79.21	A	G	C–A			R	X					R							
10R-1, 25–26	83.35	A	M–G	C–A									X					X		
10R-1, 100–101	84.10	A	M–G	C–A			R						R			X		X		
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*		R						X					X		
10R-2, 100–101	85.60	A	M–G	R–F			R						R					R		
10R-3, 100–101	87.10	A	M–G	X			X						R							
10R-CC, 13–18	87.53	A	M–G	X			R						R					X		
11R-1, 100–101	93.70	A	M–G	R–F			X						F		X			X		
11R-2, 100–101	95.20	A	M–G	R			X						X			X				
11R-3, 100–101	96.70	A	M–G	F			X						X							
11R-4, 100–101	98.20	A	M–G	F			R						X							
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*		X						X		R					
11R-6, 100–101	101.20	A	M–G	R–F			R						X		R			F		
11R-CC, 9–14	102.39	A	M–G	R			R						F		R			R		
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*		R								R					
12R-2, 100–101	104.80	A	M–G	F			R								X	R				
12R-3, 100–101	106.30	A	M	A		R	R							R					F	
12R-CC, 23–28	107.03	C	M	A		R	R											R	F	
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*		F													
13R-2, 100–101	114.50	A	M	A		F										X				
13R-3, 100–101	116.00	A	M–G	A		F	R									R				
13R-4, 100–101	117.50	C	M	A		F	R									R				

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Rouxia* spp.	*Spumorbis annulifer*	*Stellarima microtrias*	*Stellarima stellaris*	*Stephanopyxis* spp.	*Synedropsis* sp. B [Scherer et al., 2000]	*Thalassionema nitzschioides*	*Thalassionema nitzschioides* var. *parvum*	*Thalassionema nitzschioides* var. 1 [1138A]	*Thalassiosira antarctica*	*Thalassiosira* sp. cf. *T. antarctica*	*Thalassiosira complicata*	*Thalassiosira* sp. cf. *T. eccentrica*	*Thalassiosira elliptipora*	*Thalassiosira fasciculata*
8R-1, 100–101	65.30	A	M–G	X								F								
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*							F								
8R-3, 100–101	68.30	A	M–G	A								F								
8R-4, 100–101	69.80	C	P–M	F–C				X		X		F	R							
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*			X		X	X	C								
8R-6, 100–101	72.80	A	M	C–A						R		C				X				R
8R-CC, 10–15	74.04	C	P–M	R						R		C	R							R
9R-1, 100–101	74.70	A	M–G	A						F		C								
9R-2, 100–101	76.20	A	M	C–A						F		A								
9R-3, 100–101	77.70	A	M–G	C–A						R		C								
9R-CC, 14–19	79.21	A	G	C–A						X		F								
10R-1, 25–26	83.35	A	M–G	C–A				R		F		F	X				F			
10R-1, 100–101	84.10	A	M–G	C–A				R		F		F					R	?		
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*			R		F		R	X				R			
10R-2, 100–101	85.60	A	M–G	R–F				R		F		R	R				R			
10R-3, 100–101	87.10	A	M–G	X						F		X					R			
10R-CC, 13–18	87.53	A	M–G	X				X		R		F					R			
11R-1, 100–101	93.70	A	M–G	R–F						F		R	R				F	X		
11R-2, 100–101	95.20	A	M–G	R						F		R	R				C			
11R-3, 100–101	96.70	A	M–G	F						F		F	X				F	X		
11R-4, 100–101	98.20	A	M–G	F				X		F		F					F			
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*					F		F		R			F			
11R-6, 100–101	101.20	A	M–G	R–F				X		F		F		F			R			
11R-CC, 9–14	102.39	A	M–G	R				R		R		F		R			F			
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*			F		R		F	R				F			
12R-2, 100–101	104.80	A	M–G	F				F		F		F		R			R			
12R-3, 100–101	106.30	A	M	A				X				R	C	X				R		
12R-CC, 23–28	107.03	C	M	A								F	C	X		X		X		
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*							R	R					R		
13R-2, 100–101	114.50	A	M	A				X				C	R	X				X		
13R-3, 100–101	116.00	A	M–G	A								F	F	R				X		
13R-4, 100–101	117.50	C	M	A								F	F	F				R		

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Thalassiosira gracilis*	*Thalassiosira insigna*	*Thalassiosira inura*	*Thalassiosira jacksonii*	*Thalassiosira kolbei*	*Thalassiosira lentiginosa*	*Thalassiosira lentiginosa* var. *ovalis*	*Thalassiosira miocenica*	*Thalassiosira nansenii*	*Thalassiosira oliverana*	*Thalassiosira oliverana* var. *sparsa*	*Thalassiosira praefraga*	*Thalassiosira ritscheri*	*Thalassiosira striata*	*Thalassiosira tetraoestrupii* group
8R-1, 100–101	65.30	A	M–G	X						F	R				R					F
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*					F	R	X			F					F
8R-3, 100–101	68.30	A	M–G	A				R		F	F	X			F					F
8R-4, 100–101	69.80	C	P–M	F–C			X			F	R	R			C					F
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*		X	X			F	X			C					C
8R-6, 100–101	72.80	A	M	C–A			X			F		X			C					F
8R-CC, 10–15	74.04	C	P–M	R			C			R	F	R			F					X
9R-1, 100–101	74.70	A	M–G	A		?	F	R		F	F	R			F					R
9R-2, 100–101	76.20	A	M	C–A			R	F		F	R	R			F					R
9R-3, 100–101	77.70	A	M–G	C–A			F	F		F	R	R			F					R
9R-CC, 14–19	79.21	A	G	C–A				F		F	X				F					R
10R-1, 25–26	83.35	A	M–G	C–A				F		F	?				F				R	R
10R-1, 100–101	84.10	A	M–G	C–A				F		F	?				F				F	F
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*			F		F					F					F
10R-2, 100–101	85.60	A	M–G	R–F				F		F	?				F				R	R
10R-3, 100–101	87.10	A	M–G	X				F		F	?				F				R	R
10R-CC, 13–18	87.53	A	M–G	X				F		F	?				F				R	R
11R-1, 100–101	93.70	A	M–G	R–F				R		F	?				R					
11R-2, 100–101	95.20	A	M–G	R				F		F	?				F				R	X
11R-3, 100–101	96.70	A	M–G	F				F		R	?				F				R	
11R-4, 100–101	98.20	A	M–G	F				F			?				F				R	
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*			F			?				F				R	
11R-6, 100–101	101.20	A	M–G	R–F				F			?				F				R	R
11R-CC, 9–14	102.39	A	M–G	R				F		?	?				F				F	R
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*			F		?					F					F
12R-2, 100–101	104.80	A	M–G	F				R	R						F					R
12R-3, 100–101	106.30	A	M	A										X	R					
12R-CC, 23–28	107.03	C	M	A									X							
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*				X						X	R				
13R-2, 100–101	114.50	A	M	A												F				
13R-3, 100–101	116.00	A	M–G	A					R						R	F				
13R-4, 100–101	117.50	C	M	A											R	R				

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Thalassiosira tetraoestrupii* var. *reimeri*	*Thalassiosira torokina* ("early" form)	*Thalassiosira trifulta*	*Thalassiosira tumida*	*Thalassiosira vulnifica*	*Thalassiosira* sp. 1 [1138A]	*Thalassiosira* spp.	*Trichotoxon/Thalassiothrix* spp.	*Trinacria excavata*	Ebridians	*Ammodochium rectangulare*	*Ebriopsis cornuta*	*Falsebria ambigua*	*Pseudammodochium sphericum* (single skeleton)
8R-1, 100–101	65.30	A	M–G	X		R				F	R		F						
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*	R			R	F	R		F						
8R-3, 100–101	68.30	A	M–G	A			X		X	R	R		F						
8R-4, 100–101	69.80	C	P–M	F–C		R				F	R		F						
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*		F			F			F						
8R-6, 100–101	72.80	A	M	C–A						C	R		F						
8R-CC, 10–15	74.04	C	P–M	R						F			F						
9R-1, 100–101	74.70	A	M–G	A			R				F		F						
9R-2, 100–101	76.20	A	M	C–A			X				F		F						
9R-3, 100–101	77.70	A	M–G	C–A			X			d?	F		R				X		
9R-CC, 14–19	79.21	A	G	C–A			F			d?	R		F				X		
10R-1, 25–26	83.35	A	M–G	C–A									C						
10R-1, 100–101	84.10	A	M–G	C–A									C				X		
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*								F						
10R-2, 100–101	85.60	A	M–G	R–F									C						
10R-3, 100–101	87.10	A	M–G	X					R				C						
10R-CC, 13–18	87.53	A	M–G	X					R	d			F						
11R-1, 100–101	93.70	A	M–G	R–F									F						
11R-2, 100–101	95.20	A	M–G	R					F				C						
11R-3, 100–101	96.70	A	M–G	F					R				C				X		
11R-4, 100–101	98.20	A	M–G	F					R				R						
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*		F		R				C				R		
11R-6, 100–101	101.20	A	M–G	R–F					R				F				R		
11R-CC, 9–14	102.39	A	M–G	R					R				F				R		
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*		X		R				F						
12R-2, 100–101	104.80	A	M–G	F			X		R				F						
12R-3, 100–101	106.30	A	M	A			X						F						
12R-CC, 23–28	107.03	C	M	A			X						F						
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*		X						F					X	
13R-2, 100–101	114.50	A	M	A			R						F						
13R-3, 100–101	116.00	A	M–G	A			F					R	F						
13R-4, 100–101	117.50	C	M	A			R						F					X	

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	Endoskeletal dinoflagellates	*Actiniscus pentasterias*	*Carduifolia gracilis*	*Foliactiniscus mirabilis*
8R-1, 100–101	65.30	A	M–G	X			X		
8R-2, 100–101	66.80	A	M–G	F	*Thalassiosira vulnifica*		X		
8R-3, 100–101	68.30	A	M–G	A					
8R-4, 100–101	69.80	C	P–M	F–C					
8R-5, 100–101	71.30	A	M	C	*Thalassiosira insigna–Thalassiosira vulnifica*				
8R-6, 100–101	72.80	A	M	C–A					
8R-CC, 10–15	74.04	C	P–M	R			R		
9R-1, 100–101	74.70	A	M–G	A					
9R-2, 100–101	76.20	A	M	C–A					
9R-3, 100–101	77.70	A	M–G	C–A					
9R-CC, 14–19	79.21	A	G	C–A					
10R-1, 25–26	83.35	A	M–G	C–A			R		
10R-1, 100–101	84.10	A	M–G	C–A			R		
10R-2, 25–26	84.85	A	M	R	*Fragilariopsis interfrigidaria*		R		
10R-2, 100–101	85.60	A	M–G	R–F			R		
10R-3, 100–101	87.10	A	M–G	X			R		
10R-CC, 13–18	87.53	A	M–G	X			R		
11R-1, 100–101	93.70	A	M–G	R–F			F		
11R-2, 100–101	95.20	A	M–G	R			X		
11R-3, 100–101	96.70	A	M–G	F			R		
11R-4, 100–101	98.20	A	M–G	F			F		
11R-5, 100–101	99.70	A	M–G	C	*Fragilariopsis barronii*		R		
11R-6, 100–101	101.20	A	M–G	R–F			R		
11R-CC, 9–14	102.39	A	M–G	R			R		
12R-1, 100–101	103.30	A	M–G	C	*Thalassiosira inura*		R		
12R-2, 100–101	104.80	A	M–G	F			R		
12R-3, 100–101	106.30	A	M	A			X		
12R-CC, 23–28	107.03	C	M	A			R		
13R-1, 100–101	113.00	C	P–M	A	*Nitzschia reinholdii*		R		
13R-2, 100–101	114.50	A	M	A			F		
13R-3, 100–101	116.00	A	M–G	A			F		
13R-4, 100–101	117.50	C	M	A			R		

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	Diatoms	*Actinocyclus actinochilus*	*Actinocyclus curvatulus*	*Actinocyclus dimorphus*	*Actinocyclus fasciculatus*	*Actinocyclus ingens*	*Actinocyclus ingens* var. *nodus*	*Actinocyclus ingens* var. *ovalis*	*Actinocyclus ingens* var. 1 [1138A]	*Actinocyclus ingens* var. 2 [1138A]	*Actinocyclus karstenii*	*Actinocyclus maccollumii*	*Actinocyclus* spp.	*Actinoptychus senarius*	*Arachnoidiscus* spp.
13R-CC, 19–24	118.59	C	P–M	C				R			F		F			R		R	F	
14R-1, 52–53	122.12	C	P	A									R					X	R	
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*													R	X	
14R-3, 50–51	125.10	C	P–M	A							X		R						X	
15R-CC, 15–20	134.23	A	G	A							R		F					F	X	
16R-CC, 13–18	145.85	A	M–G	A							F									
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*						F									
17R-4, 50–51	155.50	A	M	A							C	X								
17R-CC, 5–10	158.27	A	M	A							C									
18R-1, 50–51	160.60	A	M	A							C									
18R-2, 50–51	162.10	A	M	A							R–F									
18R-3, 50–51	163.60	A	M	A							F–C							X		
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*						R–F							X		
18R-5, 50–51	166.60	A	M	A							R									
18R-6, 50–51	168.10	A	M	A							F								X	
18R-CC, 0–7	168.84	A	G	A							F								X	
19R-1, 50–51	170.20	A	M	A							R							R		
19R-2, 50–51	171.70	C–A	M	A							F–C							X		
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*						C							X		
19R-CC, 15–20	174.75	A	M	A							F									
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*						F	X								
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*						R–F	R								
20R-CC, 12–17	186.14	C	P	A							C	F								
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*						F	C								
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*						F			R						
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*									F					R	
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"															
25R-CC, 12–17	230.02	R	P	A	*Thalassiosira praefraga* "a–b"															
26R-CC, 0–5	239.85	F	P	A																
27R-CC, 0–5	248.71	F	P	A																
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*															

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Araniscus lewisianus*	*Asterolampra tela*	*Asteromphalus kennettii*	*Asteromphalus oligocenicus*	*Asteromphalus parvulus/hookeri*	*Asteromphalus symmetricus*	*Azpeitia gombosi*	*Azpeitia harwoodii*	*Azpeitia tabularis*	*Bogorovia gombosii*	*Bogorovia veniamini*	*Cavitatus jouseanus*	*Cavitatus miocenicus*	*Cavitatus rectus*	*Cestodiscus pulchellus*
13R-CC, 19–24	118.59	C	P–M	C																
14R-1, 52–53	122.12	C	P	A																
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*			R												
14R-3, 50–51	125.10	C	P–M	A				R												
15R-CC, 15–20	134.23	A	G	A				F												
16R-CC, 13–18	145.85	A	M–G	A										F						
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*									F						
17R-4, 50–51	155.50	A	M	A										F						
17R-CC, 5–10	158.27	A	M	A										F						
18R-1, 50–51	160.60	A	M	A										R						
18R-2, 50–51	162.10	A	M	A										R						
18R-3, 50–51	163.60	A	M	A										F						
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*									R						
18R-5, 50–51	166.60	A	M	A										F						
18R-6, 50–51	168.10	A	M	A										F						
18R-CC, 0–7	168.84	A	G	A										R						
19R-1, 50–51	170.20	A	M	A										F						
19R-2, 50–51	171.70	C–A	M	A										X						
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*									X						
19R-CC, 15–20	174.75	A	M	A										R						
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*									X						
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*									R						
20R-CC, 12–17	186.14	C	P	A										X						
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*	F												R		
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*									X						
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*	R								F			C			
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"												R			
25R-CC, 12–17	230.02	R	P	A													X			
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"				fr					X			F			
27R-CC, 0–5	248.71	F	P	A					X								F	X		
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*		F		X		R	?			X	F	R	R	F	

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Chaetoceros bulbosum*	*Chaetoceros lorenzianus*	*Chaetoceros* sp. A [Harwood & Maruyama, 1992]	*Chaetoceros* spp. (spores)	*Chaetoceros* spp. (small vegetative cells)	*Cestodiscus* spp.	*Cocconeis* spp.	*Corethron criophilum*	*"Coscinodiscus" rhombicus*	*Coscinodiscus marginatus*	*Coscinodiscus* spp.	*Crucidenticula ikebei*	*Crucidenticula nicobarica*	*Dactyliosolen antarcticus* (girdle band ends)	*"Denticula"* sp. cf. *D. norwegica*
13R-CC, 19–24	118.59	C	P–M	C					F	F			R		F	R			R	
14R-1, 52–53	122.12	C	P	A					F	R					C	X				
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*				F	F		X			F	R			C	
14R-3, 50–51	125.10	C	P–M	A					R						F–C	R			F	
15R-CC, 15–20	134.23	A	G	A					F			R			F	F			F	
16R-CC, 13–18	145.85	A	M–G	A					R						F	R			R	
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*										R	R			C	
17R-4, 50–51	155.50	A	M	A					X						F–C	F			R	
17R-CC, 5–10	158.27	A	M	A					R						F	F			R	
18R-1, 50–51	160.60	A	M	A											C	F				
18R-2, 50–51	162.10	A	M	A											F	R			X	
18R-3, 50–51	163.60	A	M	A											C	R				
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*										R	F				
18R-5, 50–51	166.60	A	M	A					X						X	F			F	
18R-6, 50–51	168.10	A	M	A						R						R–F			R	
18R-CC, 0–7	168.84	A	G	A											F	F			R	
19R-1, 50–51	170.20	A	M	A												X			R	
19R-2, 50–51	171.70	C–A	M	A					X						F					
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*										F					
19R-CC, 15–20	174.75	A	M	A											F	F				
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*				X	X					R	X		X		
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*				X						R	R		F–C		
20R-CC, 12–17	186.14	C	P	A											R	R		F	R	
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*										R			R		
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*										F					
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*								R		F	R	R		R	X
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"				X						R	X				
25R-CC, 12–17	230.02	R	P	A											R	X				
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"										F	R				
27R-CC, 0–5	248.71	F	P	A										R	F	R				
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*						F			F	F				X	

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Denticulopsis crassa*	*Dentculopsis dimorpha* var. *areolata*	*Denticuolopsis dimorpha* var. *dimorpha*	*Denticuolopsis "hustedtii* var. *asper"*	*Denticulopsis hyalina*	*Denticulopsis maccollumii*	*Denticulopsis ovata*	*Denticulopsis praedimorpha* var. *praedimorpha*	*Denticulopsis simonsenii*	*Denticulopsis vulgaris*	*Diploneis* spp.	*Drepanotheca* spp.	*Entomoneis* sp.	*Entopyla* spp.	*Eucampia antarctica*	*Eucampia antarctica* var. *"twista"*
13R-CC, 19–24	118.59	C	P–M	C											F						
14R-1, 52–53	122.12	C	P	A											F–C						
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*										F						
14R-3, 50–51	125.10	C	P–M	A					C						C						
15R-CC, 15–20	134.23	A	G	A										?	F						
16R-CC, 13–18	145.85	A	M–G	A		R	r?					r?		F	F					R	
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*	R								F	F						
17R-4, 50–51	155.50	A	M	A		R								R	F						
17R-CC, 5–10	158.27	A	M	A		X	R					R		F	R						
18R-1, 50–51	160.60	A	M	A		X	A	R				C		R–C	F						
18R-2, 50–51	162.10	A	M	A		X	A	F				R		F	R–F						
18R-3, 50–51	163.60	A	M	A		X	A	R				X		X	X						
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*	R–F	A	R–F						F							
18R-5, 50–51	166.60	A	M	A		F	A	R					?	F						X	
18R-6, 50–51	168.10	A	M	A		R	A	X					X	F							
18R-CC, 0–7	168.84	A	G	A		?	A	R				R		F							
19R-1, 50–51	170.20	A	M	A		X	A	R					R	F–C							
19R-2, 50–51	171.70	C–A	M	A			A	X					R	F							
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*		A	X					R	R							
19R-CC, 15–20	174.75	A	M	A			A	R					R	F							
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*								X–R	F						X	X
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*									F							
20R-CC, 12–17	186.14	C	P	A						F				R							
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*																
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*		d?				C										
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*						A								X		
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"		d?														
25R-CC, 12–17	230.02	R	P	A																	
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"																
27R-CC, 0–5	248.71	F	P	A																	
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Ethmodiscus* sp.	*Fragilariopsis arcula*	*Fragilariopsis aurica*	*Fragilariopsis barronii*	*Fragilariopsis* sp. cf. *F. barronii*	*Fragilariopsis clementia*	*Fragilariopsis curta*	*Fragilariopsis cylindrus*	*Fragilariopsis donahuensis*	*Fragilariopsis efferans*	*Fragilariopsis fossilis*	*Fragilariopsis heardensis*	*Fragilariopsis interfrigidaria*	*Fragilariopsis interfrigidaria-weaveri* (intermediate)	*Fragilariopsis januaria*
13R-CC, 19–24	118.59	C	P–M	C										R						R
14R-1, 52–53	122.12	C	P	A										X						F
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*									X						C
14R-3, 50–51	125.10	C	P–M	A																R–F
15R-CC, 15–20	134.23	A	G	A										R		R				R
16R-CC, 13–18	145.85	A	M–G	A		fr								X						
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*															
17R-4, 50–51	155.50	A	M	A																
17R-CC, 5–10	158.27	A	M	A																
18R-1, 50–51	160.60	A	M	A																
18R-2, 50–51	162.10	A	M	A										X						
18R-3, 50–51	163.60	A	M	A																
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*															
18R-5, 50–51	166.60	A	M	A																
18R-6, 50–51	168.10	A	M	A																
18R-CC, 0–7	168.84	A	G	A																
19R-1, 50–51	170.20	A	M	A																
19R-2, 50–51	171.70	C–A	M	A																
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*															
19R-CC, 15–20	174.75	A	M	A																
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*										R					
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*															
20R-CC, 12–17	186.14	C	P	A																
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*															
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*															
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*	fr														
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"															
25R-CC, 12–17	230.02	R	P	A																
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"															
27R-CC, 0–5	248.71	F	P	A		fr														
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*															

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Fragilariopsis kerguelensis*	*Fragilariopsis lacrima*	*Fragilariopsis matuyamae*	*Fragilariopsis obliquecostata*	*Fragilariopsis* cf. *obliquecostata*	*Fragilariopsis praecurta*	*Fragilariopsis praeinterfrigidaria*	*Fragilariopsis praeinterfrigidaria-interfrigidaria* (intermediate)	*Fragilariopsis pusilla*	*Fragilariopsis pseudonana*	*Fragilariopsis rhombica*	*Fragilariopsis ritscheri*	*Fragilariopsis* cf. *ritscheri*	*Fragilariopsis separanda*	*Fragilariopsis weaveri*
13R-CC, 19–24	118.59	C	P–M	C							F	?		F						
14R-1, 52–53	122.12	C	P	A										X						
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*									R–F						
14R-3, 50–51	125.10	C	P–M	A										F						
15R-CC, 15–20	134.23	A	G	A							?			F						
16R-CC, 13–18	145.85	A	M–G	A																
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*									X						
17R-4, 50–51	155.50	A	M	A																
17R-CC, 5–10	158.27	A	M	A																
18R-1, 50–51	160.60	A	M	A																
18R-2, 50–51	162.10	A	M	A																
18R-3, 50–51	163.60	A	M	A																
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*															
18R-5, 50–51	166.60	A	M	A																
18R-6, 50–51	168.10	A	M	A																
18R-CC, 0–7	168.84	A	G	A																
19R-1, 50–51	170.20	A	M	A																
19R-2, 50–51	171.70	C–A	M	A																
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*															
19R-CC, 15–20	174.75	A	M	A																
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*															
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*															
20R-CC, 12–17	186.14	C	P	A																
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*															
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*															
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*															
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"															
25R-CC, 12–17	230.02	R	P	A																
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"															
27R-CC, 0–5	248.71	F	P	A																
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*															

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Hemidsicus* sp. cf. *H. cuneiformis*	*Hemidiscus karstenii*	*Hemidiscus karstenii* f. 1 [Ciesielski, 1983]	*Hemidiscus triangularus*	*Hemiaulus incisus*	*Hemiaulus* spp.	*Hyalodiscus radiatus*	*Ikebea* sp. B [Scherer et al., 2000]	*Isthmia* sp.	*Lithodesmium minisculum*	*Navicula directa*	*Navicula* spp.	*Neobrunia mirabilis*	*Nitzschia denticuloides*	*Nitzschia grossepunctata*
13R-CC, 19–24	118.59	C	P–M	C				R				R								
14R-1, 52–53	122.12	C	P	A			X	X							R					
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*										C					
14R-3, 50–51	125.10	C	P–M	A		X									F					
15R-CC, 15–20	134.23	A	G	A				R							R			fr		
16R-CC, 13–18	145.85	A	M–G	A		R												fr		
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*	X														
17R-4, 50–51	155.50	A	M	A																
17R-CC, 5–10	158.27	A	M	A														fr		
18R-1, 50–51	160.60	A	M	A																
18R-2, 50–51	162.10	A	M	A																
18R-3, 50–51	163.60	A	M	A																
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*															
18R-5, 50–51	166.60	A	M	A																
18R-6, 50–51	168.10	A	M	A																
18R-CC, 0–7	168.84	A	G	A																
19R-1, 50–51	170.20	A	M	A																
19R-2, 50–51	171.70	C–A	M	A															R	
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*														F	
19R-CC, 15–20	174.75	A	M	A															C	
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*														F–C	R
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*														C	R
20R-CC, 12–17	186.14	C	P	A															R	F
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*															
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*															
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*															
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"															
25R-CC, 12–17	230.02	R	P	A																
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"					r			X							
27R-CC, 0–5	248.71	F	P	A																
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*						X		R							

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Nitzschia maleinterpretaria*	*Nitzschia miocenica*	*Nitzschia panduriformis*	*Nitzschia reinholdii*	*Nitzschia* sp. 17 [Schrader, 1976]	*Paralia sulcata*	*Porosira pseudodentiaulata*	*Proboscia* spp.	*Radialiplicata clavigera*	*Psammodictyon* sp.	*Raphidodiscus marylandicus*	*Rhabdonema japonicum* group	*Rhabdonema/Grammatophora* spp.	*Rhizosolenia costata*	*Rhizosolenia hebetata* group
13R-CC, 19–24	118.59	C	P–M	C			R		R		F		R							R
14R-1, 52–53	122.12	C	P	A							F									R
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*															R
14R-3, 50–51	125.10	C	P–M	A							X									R
15R-CC, 15–20	134.23	A	G	A									F							R
16R-CC, 13–18	145.85	A	M–G	A									R							R
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*															R
17R-4, 50–51	155.50	A	M	A							R									F
17R-CC, 5–10	158.27	A	M	A																R
18R-1, 50–51	160.60	A	M	A																
18R-2, 50–51	162.10	A	M	A																
18R-3, 50–51	163.60	A	M	A									X							X
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*								X							X
18R-5, 50–51	166.60	A	M	A																R
18R-6, 50–51	168.10	A	M	A									X							R
18R-CC, 0–7	168.84	A	G	A																R
19R-1, 50–51	170.20	A	M	A									X							R
19R-2, 50–51	171.70	C–A	M	A									X							X
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*															X
19R-CC, 15–20	174.75	A	M	A																R
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*															X
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*															X
20R-CC, 12–17	186.14	C	P	A							R		R							R
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*								X							
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*					R			X							R
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*	X				X						F				R
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"															
25R-CC, 12–17	230.02	R	P	A	*Thalassiosira praefraga* "a–b"															
26R-CC, 0–5	239.85	F	P	A																
27R-CC, 0–5	248.71	F	P	A																
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*	F														X

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Rhizosolenia hebetata* f. *hiemalis* [sensu Schrader, 1976]	*Rhizosolenia styliformis* group	*Rhizosolenia* sp. cf. R. *sima* f. *silicea*	*Rocella gelida*	*Rocella gelida* var. *schraderi*	*Rocella praenitida*	*Rocella vigilans* var. B [Harwood & Maruyama, 1992]	*Rouxia antarctica*	*Rouxia californica*	*Rouxia heteropolara*	*Rouxia isopolica*	*Rouxia leventerae*	*Rouxia naviculoides*	*Rouxia peragalli* [sensu Baldauf & Barron, 1991]	*Rouxia* sp. 1
13R-CC, 19–24	118.59	C	P–M	C		F	R							X		R		R		
14R-1, 52–53	122.12	C	P	A		F–C								X				X		
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*	R								X		F				
14R-3, 50–51	125.10	C	P–M	A		R	X									R				
15R-CC, 15–20	134.23	A	G	A		F	F													
16R-CC, 13–18	145.85	A	M–G	A		F	R													
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*	F–C	X													
17R-4, 50–51	155.50	A	M	A		F–C														
17R-CC, 5–10	158.27	A	M	A		R	R													
18R-1, 50–51	160.60	A	M	A		X														
18R-2, 50–51	162.10	A	M	A		X														
18R-3, 50–51	163.60	A	M	A		R–F														
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*	F	X													
18R-5, 50–51	166.60	A	M	A		R														
18R-6, 50–51	168.10	A	M	A		X														
18R-CC, 0–7	168.84	A	G	A		X														
19R-1, 50–51	170.20	A	M	A		X														
19R-2, 50–51	171.70	C–A	M	A																
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*															
19R-CC, 15–20	174.75	A	M	A		R														
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*		X													
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*															
20R-CC, 12–17	186.14	C	P	A			X													
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*															
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*															
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*						X									
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"															
25R-CC, 12–17	230.02	R	P	A																
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"															
27R-CC, 0–5	248.71	F	P	A								r								
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*						X									

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Rouxia* spp.	*Spumorbis annulifer*	*Stellarima microtrias*	*Stellarima stellaris*	*Stephanopyxis* spp.	*Synedropsis* sp. B [Scherer et al., 2000]	*Thalassionema nitzschioides*	*Thalassionema nitzschioides* var. *parvum*	*Thalassionema nitzschioides* var. 1 [1138A]	*Thalassiosira antarctica*	*Thalassiosira* sp. cf. *T. antarctica*	*Thalassiosira complicata*	*Thalassiosira* sp. cf. *T. eccentrica*	*Thalassiosira elliptipora*	*Thalassiosira fasciculata*
13R-CC, 19–24	118.59	C	P–M	C								C	F	F				X		
14R-1, 52–53	122.12	C	P	A								R–F		R				X		
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*			X				X		F				R		
14R-3, 50–51	125.10	C	P–M	A				R				R	R–F	R				F		
15R-CC, 15–20	134.23	A	G	A				R				C	F	F				F		
16R-CC, 13–18	145.85	A	M–G	A								F								
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*							F–C								
17R-4, 50–51	155.50	A	M	A								F–C	X							
17R-CC, 5–10	158.27	A	M	A								R	R							
18R-1, 50–51	160.60	A	M	A									R							
18R-2, 50–51	162.10	A	M	A				X												
18R-3, 50–51	163.60	A	M	A																
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*															
18R-5, 50–51	166.60	A	M	A																
18R-6, 50–51	168.10	A	M	A								X								
18R-CC, 0–7	168.84	A	G	A								X								
19R-1, 50–51	170.20	A	M	A																
19R-2, 50–51	171.70	C–A	M	A																
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*							R								
19R-CC, 15–20	174.75	A	M	A				X				R								
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*															
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*	R							R							
20R-CC, 12–17	186.14	C	P	A								F	X							
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*							R	F							
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*							R	R							
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*							R	C							
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"								d?							
25R-CC, 12–17	230.02	R	P	A																
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"															
27R-CC, 0–5	248.71	F	P	A			X			R										
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*		X	X												

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Thalassiosira gracilis*	*Thalassiosira insigna*	*Thalassiosira inura*	*Thalassiosira jacksonii*	*Thalassiosira kolbei*	*Thalassiosira lentiginosa*	*Thalassiosira lentiginosa* var. *ovalis*	*Thalassiosira miocenica*	*Thalassiosira nansenii*	*Thalassiosira oliverana*	*Thalassiosira oliverana* var. *sparsa*	*Thalassiosira praefraga*	*Thalassiosira ritscheri*	*Thalassiosira striata*	*Thalassiosira tetraoestrupii* group
13R-CC, 19–24	118.59	C	P–M	C																
14R-1, 52–53	122.12	C	P	A																
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*								X							
14R-3, 50–51	125.10	C	P–M	A																
15R-CC, 15–20	134.23	A	G	A																
16R-CC, 13–18	145.85	A	M–G	A																
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*															
17R-4, 50–51	155.50	A	M	A																
17R-CC, 5–10	158.27	A	M	A																
18R-1, 50–51	160.60	A	M	A																
18R-2, 50–51	162.10	A	M	A																
18R-3, 50–51	163.60	A	M	A																
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*															
18R-5, 50–51	166.60	A	M	A																
18R-6, 50–51	168.10	A	M	A																
18R-CC, 0–7	168.84	A	G	A																
19R-1, 50–51	170.20	A	M	A																
19R-2, 50–51	171.70	C–A	M	A																
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*															
19R-CC, 15–20	174.75	A	M	A																
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*															
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*															
20R-CC, 12–17	186.14	C	P	A																
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*															
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*															
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*															
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"															
25R-CC, 12–17	230.02	R	P	A													X			
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"												X			
27R-CC, 0–5	248.71	F	P	A													R			
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*															

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Thalassiosira tetraoestrupii* var. *reimeri*	*Thalassiosira torokina* ("early" form)	*Thalassiosira trifulta*	*Thalassiosira tumida*	*Thalassiosira vulnifica*	*Thalassiosira* sp. 1 [1138A]	*Thalassiosira* spp.	*Trichotoxon/Thalassiothrix* spp.	*Trinacria excavata*	Ebridians	*Ammodochium rectangulare*	*Ebriopsis cornuta*	*Falsebria ambigua*	*Pseudammodochium sphericum* (single skeleton)
13R-CC, 19–24	118.59	C	P–M	C			R					R	F						
14R-1, 52–53	122.12	C	P	A			R–F					R	F			X			
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*		X					C	R–F			X			
14R-3, 50–51	125.10	C	P–M	A			R					C	F						
15R-CC, 15–20	134.23	A	G	A			F					F	F					X	
16R-CC, 13–18	145.85	A	M–G	A								R	F						
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*							X	F						
17R-4, 50–51	155.50	A	M	A								X	R–F						
17R-CC, 5–10	158.27	A	M	A									F						
18R-1, 50–51	160.60	A	M	A									R						
18R-2, 50–51	162.10	A	M	A									R						
18R-3, 50–51	163.60	A	M	A									F						
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*								F						
18R-5, 50–51	166.60	A	M	A									F						
18R-6, 50–51	168.10	A	M	A									R						
18R-CC, 0–7	168.84	A	G	A									F						
19R-1, 50–51	170.20	A	M	A									F						
19R-2, 50–51	171.70	C–A	M	A									F						
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*								F						
19R-CC, 15–20	174.75	A	M	A									X						
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*								F–C						
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*								R						
20R-CC, 12–17	186.14	C	P	A									F			X			
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*								F			X			
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*								F					X	X
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*								X						
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"								d?					X	
25R-CC, 12–17	230.02	R	P	A														X	
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"								d?			X		X	X
27R-CC, 0–5	248.71	F	P	A									d?						
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*														X

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	Endoskeletal dinoflagellates	*Actiniscus pentasterias*	*Carduifolia gracilis*	*Foliactiniscus mirabilis*
13R-CC, 19–24	118.59	C	P–M	C					
14R-1, 52–53	122.12	C	P	A					
14R-2, 50–51	123.60	C	P	A	*Actinocyclus ingens* var. *ovalis*				
14R-3, 50–51	125.10	C	P–M	A					
15R-CC, 15–20	134.23	A	G	A			R		
16R-CC, 13–18	145.85	A	M–G	A			R		
17R-2, 50–51	152.50	A	M	A	*Asteromphalus kennettii/Denticulopsis simonsenii*			X	
17R-4, 50–51	155.50	A	M	A			X		
17R-CC, 5–10	158.27	A	M	A			R		
18R-1, 50–51	160.60	A	M	A					
18R-2, 50–51	162.10	A	M	A			X		
18R-3, 50–51	163.60	A	M	A					
18R-4, 50–51	165.10	A	M	A	*Denticulopsis dimorpha*		X		
18R-5, 50–51	166.60	A	M	A			X		
18R-6, 50–51	168.10	A	M	A					
18R-CC, 0–7	168.84	A	G	A					
19R-1, 50–51	170.20	A	M	A					
19R-2, 50–51	171.70	C–A	M	A					
19R-3, 50–51	173.20	A	M	A	*Denticulopsis praedimorpha–Nitzschia denticuloides*		X		
19R-CC, 15–20	174.75	A	M	A			X		
20R-2, 50–51	181.30	C	P	A	*Denticulopsis praedimorpha*		X		
20R-4, 50–51	184.30	C	P–M	A	*Nitzschia denticuloides*				
20R-CC, 12–17	186.14	C	P	A			R		
21R-CC, 15–20	191.26	C	P–M	A	*Actinocyclus ingens* var. *nodus*		F		
22R-CC, 0–5	201.60	C	P	A	*Nitzschia grossepunctata/Actinocyclus ingens–Denticulopsis maccollumii*		R		
23R-CC, 0–5	210.85	A	M	A	*Denticulopsis maccollumii*		R		
24R-CC, 11–16	221.34	R	P	A	*Crucidenticula kanayae/Thalassiosira praefraga* "c"		R		
25R-CC, 12–17	230.02	R	P	A			X		
26R-CC, 0–5	239.85	F	P	A	*Thalassiosira praefraga* "a–b"		R		X
27R-CC, 0–5	248.71	F	P	A			R		
28R-CC, 0–10	261.81	F	P	A	*Thalassiosira spumellaroides*		X		

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	Diatoms	*Actinocyclus actinochilus*	*Actinocyclus curvatulus*	*Actinocyclus dimorphus*	*Actinocyclus fasciculatus*	*Actinocyclus ingens*	*Actinocyclus ingens* var. *nodus*	*Actinocyclus ingens* var. *ovalis*	*Actinocyclus ingens* var. 1 [1138A]	*Actinocyclus ingens* var. 2 [1138A]	*Actinocyclus karstenii*	*Actinocyclus maccollumii*	*Actinocyclus* spp.	*Actinoptychus senarius*	*Arachnoidiscus* spp.
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"															
30R-CC, 14–19	278.21	B	—	A																
31R-CC, 0–10	285.85	B	—	A																
32R-CC, 1419	296.30	B	—	A	Not zoned															
34R-CC	319.23	B	—	A																
35R-CC, 12–17	330.78	B	—	A																
36R-CC, 0–5	340.60	B	—	A																

Notes: Bold brackets indicate zonal marker datums, and zonal intervals are divided by horizontal lines. Abundance: A = abundant, C = common, F = few, R = rare, X = present, B = barren. Preservation: G = good, M = moderate, P = poor.

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Araniscus lewisianus*	*Asterolampra tela*	*Asteromphalus kennettii*	*Asteromphalus oligocenicus*	*Asteromphalus parvulus/hookeri*	*Asteromphalus symmetricus*	*Azpeitia gombosi*	*Azpeitia harwoodii*	*Azpeitia tabularis*	*Bogorovia gombosii*	*Bogorovia veniamini*	*Cavitatus jouseanus*	*Cavitatus miocenicus*	*Cavitatus rectus*	*Cestodiscus pulchellus*
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"											F	R	R	X	R
30R-CC, 14–19	278.21	B	—	A																
31R-CC, 0–10	285.85	B	—	A																
32R-CC, 1419	296.30	B	—	A	Not zoned															
34R-CC	319.23	B	—	A																
35R-CC, 12–17	330.78	B	—	A																
36R-CC, 0–5	340.60	B	—	A																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Chaetoceros bulbosum*	*Chaetoceros lorenzianus*	*Chaetoceros* sp. A [Harwood & Maruyama, 1992]	*Chaetoceros* spp. (spores)	*Chaetoceros* spp. (small vegetative cells)	*Cestodiscus* spp.	*Cocconeis* spp.	*Corethron criophilum*	*"Coscinodiscus" rhombicus*	*Coscinodiscus marginatus*	*Coscinodiscus* spp.	*Crucidenticula ikebei*	*Crucidenticula nicobarica*	*Dactyliosolen antarcticus* (girdle band ends)	*"Denticula"* sp. cf. *D. norwegica*
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"									X	F	R				
30R-CC, 14–19	278.21	B	—	A																
31R-CC, 0–10	285.85	B	—	A																
32R-CC, 1419	296.30	B	—	A	Not zoned															
34R-CC	319.23	B	—	A																
35R-CC, 12–17	330.78	B	—	A																
36R-CC, 0–5	340.60	B	—	A																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Denticulopsis crassa*	*Dentculopsis dimorpha* var. *areolata*	*Denticuolopsis dimorpha* var. *dimorpha*	*Denticuolopsis "hustedtii* var. *asper"*	*Denticulopsis hyalina*	*Denticulopsis maccollumii*	*Denticulopsis ovata*	*Denticulopsis praedimorpha* var. *praedimorpha*	*Denticulopsis simonsenii*	*Denticulopsis vulgaris*	*Diploneis* spp.	*Drepanotheca* spp.	*Entomoneis* sp.	*Entopyla* spp.	*Eucampia antarctica*	*Eucampia antarctica* var. *"twista"*
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"																
30R-CC, 14–19	278.21	B	—	A																	
31R-CC, 0–10	285.85	B	—	A																	
32R-CC, 1419	296.30	B	—	A	Not zoned																
34R-CC	319.23	B	—	A																	
35R-CC, 12–17	330.78	B	—	A																	
36R-CC, 0–5	340.60	B	—	A																	

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Ethmodiscus* sp.	*Fragilariopsis arcula*	*Fragilariopsis aurica*	*Fragilariopsis barronii*	*Fragilariopsis* sp. cf. *F. barronii*	*Fragilariopsis clementia*	*Fragilariopsis curta*	*Fragilariopsis cylindrus*	*Fragilariopsis donahuensis*	*Fragilariopsis efferans*	*Fragilariopsis fossilis*	*Fragilariopsis heardensis*	*Fragilariopsis interfrigidaria*	*Fragilariopsis interfrigidaria-weaveri* (intermediate)	*Fragilariopsis januaria*
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"															
30R-CC, 14–19	278.21	B	—	A																
31R-CC, 0–10	285.85	B	—	A																
32R-CC, 1419	296.30	B	—	A	Not zoned															
34R-CC	319.23	B	—	A																
35R-CC, 12–17	330.78	B	—	A																
36R-CC, 0–5	340.60	B	—	A																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Fragilariopsis kerguelensis*	*Fragilariopsis lacrima*	*Fragilariopsis matuyamae*	*Fragilariopsis obliquecostata*	*Fragilariopsis* cf. *obliquecostata*	*Fragilariopsis praecurta*	*Fragilariopsis praeinterfrigidaria*	*Fragilariopsis praeinterfrigidaria-interfrigidaria* (intermediate)	*Fragilariopsis pusilla*	*Fragilariopsois pseudonana*	*Fragilariopsis rhombica*	*Fragilariopsis ritscheri*	*Fragilariopsis* cf. *ritscheri*	*Fragilariopsis separanda*	*Fragilariopsis weaveri*
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"															
30R-CC, 14–19	278.21	B	—	A																
31R-CC, 0–10	285.85	B	—	A																
32R-CC, 1419	296.30	B	—	A	Not zoned															
34R-CC	319.23	B	—	A																
35R-CC, 12–17	330.78	B	—	A																
36R-CC, 0–5	340.60	B	—	A																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Hemidsicus* sp. cf. *H. cuneiformis*	*Hemidiscus karstenii*	*Hemidiscus karstenii* f. 1 [Ciesielski, 1983]	*Hemidiscus triangularus*	*Hemiaulus incisus*	*Hemiaulus* spp.	*Hyalodiscus radiatus*	*Ikebea* sp. B [Scherer et al., 2000]	*Isthmia* sp.	*Lithodesmium minisculum*	*Navicula directa*	*Navicula* spp.	*Neobrunia mirabilis*	*Nitzschia denticuloides*	*Nitzschia grossepunctata*
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"						X		X							
30R-CC, 14–19	278.21	B	—	A																
31R-CC, 0–10	285.85	B	—	A																
32R-CC, 1419	296.30	B	—	A	Not zoned															
34R-CC	319.23	B	—	A																
35R-CC, 12–17	330.78	B	—	A																
36R-CC, 0–5	340.60	B	—	A																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Nitzschia maleinterpretaria*	*Nitzschia miocenica*	*Nitzschia panduriformis*	*Nitzschia reinholdii*	*Nitzschia* sp. 17 [Schrader, 1976]	*Paralia sulcata*	*Porosira pseudodenticulata*	*Proboscia* spp.	*Radialiplicata clavigera*	*Psammodictyon* sp.	*Raphidodiscus marylandicus*	*Rhabdonema japonicum* group	*Rhabdonema/Grammatophora* spp.	*Rhizosolenia costata*	*Rhizosolenia hebetata* group
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"								X							X
30R-CC, 14–19	278.21	B	—	A																
31R-CC, 0–10	285.85	B	—	A																
32R-CC, 1419	296.30	B	—	A	Not zoned															
34R-CC	319.23	B	—	A																
35R-CC, 12–17	330.78	B	—	A																
36R-CC, 0–5	340.60	B	—	A																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Rhizosolenia hebetata* f. *hiemalis* [sensu Schrader, 1976]	*Rhizosolenia styliformis* group	*Rhizosolenia* sp. cf. R. *sima* f. *silicea*	*Rocella gelida*	*Rocella gelida* var. *schraderi*	*Rocella praenitida*	*Rocella vigilans* var. B [Harwood & Maruyama, 1992]	*Rouxia antarctica*	*Rouxia californica*	*Rouxia heteropolara*	*Rouxia isopolica*	*Rouxia leventerae*	*Rouxia naviculoides*	*Rouxia peragalli* [sensu Baldauf & Barron, 1991]	*Rouxia* sp. 1
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"				C	R										
30R-CC, 14–19	278.21	B	—	A																
31R-CC, 0–10	285.85	B	—	A																
32R-CC, 1419	296.30	B	—	A	Not zoned															
34R-CC	319.23	B	—	A																
35R-CC, 12–17	330.78	B	—	A																
36R-CC, 0–5	340.60	B	—	A																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Rouxia* spp.	*Spumorbis annulifer*	*Stellarima microtrias*	*Stellarima stellaris*	*Stephanopyxis* spp.	*Synedropsis* sp. B [Scherer et al., 2000]	*Thalassionema nitzschioides*	*Thalassionema nitzschioides* var. *parvum*	*Thalassionema nitzschioides* var. 1 [1138A]	*Thalassiosira antarctica*	*Thalassiosira* sp. cf. *T. antarctica*	*Thalassiosira complicata*	*Thalassiosira* sp. cf. *T. eccentrica*	*Thalassiosira elliptipora*	*Thalassiosira fasciculata*
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"				R	X										
30R-CC, 14–19	278.21	B	—	A																
31R-CC, 0–10	285.85	B	—	A																
32R-CC, 1419	296.30	B	—	A	Not zoned															
34R-CC	319.23	B	—	A																
35R-CC, 12–17	330.78	B	—	A																
36R-CC, 0–5	340.60	B	—	A																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Thalassiosira gracilis*	*Thalassiosira insigna*	*Thalassiosira inura*	*Thalassiosira jacksonii*	*Thalassiosira kolbei*	*Thalassiosira lentiginosa*	*Thalassiosira lentiginosa* var. *ovalis*	*Thalassiosira miocenica*	*Thalassiosira nansenii*	*Thalassiosira oliverana*	*Thalassiosira oliverana* var. *sparsa*	*Thalassiosira praefraga*	*Thalassiosira ritscheri*	*Thalassiosira striata*	*Thalassiosira tetraoestrupii* group
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"															
30R-CC, 14–19	278.21	B	—	A																
31R-CC, 0–10	285.85	B	—	A																
32R-CC, 1419	296.30	B	—	A	Not zoned															
34R-CC	319.23	B	—	A																
35R-CC, 12–17	330.78	B	—	A																
36R-CC, 0–5	340.60	B	—	A																

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	*Thalassiosira tetraoestrupii* var. *reimeri*	*Thalassiosira torokina* ("early" form)	*Thalassiosira trifulta*	*Thalassiosira tumida*	*Thalassiosira vulnifica*	*Thalassiosira* sp. 1 [1138A]	*Thalassiosira* spp.	*Trichotoxon/Thalassiothrix* spp.	*Trinacria excavata*	Ebridians	*Ammodochium rectangulare*	*Ebriopsis cornuta*	*Falsebria ambigua*	*Pseudammodochium sphericum* (single skeleton)
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"									X		X		R	R
30R-CC, 14–19	278.21	B	—	A															
31R-CC, 0–10	285.85	B	—	A															
32R-CC, 1419	296.30	B	—	A	Not zoned														
34R-CC	319.23	B	—	A															
35R-CC, 12–17	330.78	B	—	A															
36R-CC, 0–5	340.60	B	—	A															

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Diatom abundance	Diatom preservation	Nannofossil abundance	Diatom zone	Endoskeletal dinoflagellates	*Actiniscus pentasterias*	*Carduifolia gracilis*	*Foliactiniscus mirabilis*
29R-CC, 8–13	269.41	C	P	A	*Rocella gelida* "c"		R	R	
30R-CC, 14–19	278.21	B	—	A					
31R-CC, 0–10	285.85	B	—	A					
32R-CC, 1419	296.30	B	—	A	Not zoned				
34R-CC	319.23	B	—	A					
35R-CC, 12–17	330.78	B	—	A					
36R-CC, 0–5	340.60	B	—	A					