### ODP Proceedings, Scientific Results, Volume 177

# Chapter 11, Table T4. Stratigraphic occurrence and relative abundance of diatom taxa from the Pliocene and Pleistocene, Site 1092.

Diatom zone	Core, section, interval (cm)	Depth (mcd)	Diatom abundance, cleaned slide	Diatom abundance, uncleaned slide	Diatom preservation	Actinocyclus curvatulus Actinocyclus ingens Actinocyclus ingens var. ovalis	Actinocyclus karstenii Actinocyclus maccollumii Actinocyclus sp. F Actinocyclus sp. I Actinocyclus sp. I	Actinocycius sp. ivi Actinoptychus senarius Alveus marinus Asteromphalus hookeri Asteromphalus hyalinus	Asteromphalus parvulus Azpeitia nodulifer Azpeitia tabularis Arositia tabularis var emerius	Azpeitia sp. A Azpeitia sp. A Chaetoceros atlanticus Chaetoceros spp. (resting spores) Corethron crlophilum	Coscinodiscus asteromphalus Coscinodiscus marginatus Coscinodiscus oculoides Coscinodiscus oculus-iridis	Coscinodiscus radiatus Coscinodiscus spp. Ethmodiscus rex Eucampia antarctica	Fragilariopsis arcula Fragilariopsis aurica Fragilariopsis barronii	Transition F. barronii/F. kerguelensis Fragilariopsis clementia Fragilariopsis curta Fragilariopsis cylindrus	Fragilariopsis cf. donahuensis Fragilariopsis cf. efferans Fragilariopsis fossilis	Fragulariopsis tossilis var. A Fragilariopsis interfrigidaria Fragilariopsis kerguelensis Fragilariopsis lacrima	Fragilariopsis matuyamae Fragilariopsis matuyamae var. heteropola Fragilariopsis praecurta Fragilariopsis praecurta	Fragilariopsis praemeninguana Fragilariopsis rehombica Fragilariopsis ritscheri	Fragilariopsis ritscheri var. A Fragilariopsis separanda Fragilariopsis weaveri Fragilariopsis sp. A (Gersonde, 1991)	Fragilariopsis sp.1 Fragilariopsis sp. 2 Hemidiscus cuneiformis Hemidiscus cuneiformis var. A	Hemdiscus Karstenii Hemidiscus karstenii f. 1, sensu Ciesielski (1983) Hemidiscus sp. 1 Navicula directa	Navicula wisei Nitzschia interruptestriata Nitzschia porteri	Nitzschia sicula var. bicuneata Nitzschia sicula var. rostrata Pleurosigma spp. Porosira pseudodenticulata Proboscia alata	Proboscia barboi Pseudo-nitzschia heimii Pseudo-nitzschia turgiduloides Rhizosolenia antennata f. semisoina	Rhizosolenia hebetata f. semispina Rhizosolenia polydactyla f. polydactyla Rhizosolenia styliformis Rhizosolenia sp. cf. styliformis (big form)	Rhizosolenia sp. B Rouxia antarctica Rouxia constricta Rouxia cf. californica	Rouxia heteropolara var. A Rouxia isopolica Rouxia leventerae Rouxia naviculoides	Stellarima microtrias Stelphanopyxis turris group Thalassionema bacillaris Thalassionema nitzschioides Thalassionema nitzschioides f. 1	Thalassionema nitzschioides var. cf. antiqua Thalassionema nitzschioides var. capitulata Thalassionema nitzschioides var. incurvata Thalassionema nitzschioides var. lanceolata Thalassionema nitzschioides var. lanceolata	Thalassionema nitzschioldes var. parva Thalassiosira antarctica Thalassiosira complicata Thalassiosira convexa var. aspinosa	Thalassiosira eccentrica Thalassiosira elliptipora Thalassiosira elliptipora var. A Thalassiosira fasciculata Thalassiosira frenguelliopsis/frenguelli	Thalassiosira gracuits Thalassiosira gracilis var. expecta Thalassiosira insigna Thalassiosira inura Thalassiosira inura	Thalassiosira Insignar I. Inura u autourou and Thalassiosira kolbei (flat type) Thalassiosira kolbei (convex type) Thalassiosira lentiginosa Thalassiosira cf. leptopus	Thalassiosira lineata Thalassiosira oestrupii Thalassiosira oliverana var. 3 Thalassiosira oliverana var. 4	Thalassiosira ritscheri Thalassiosira striata Thalassiosira symmetrica Thalassiosira tetraoestrupii var. reimeri Thalassiosira trifulta	Thalassiosira tumida Thalassiosira vulnifica Thalassiosira sp. B Thalassiosira sp. C	Thalassiosira sp. v Thalassiosira sp. F Thalassiothrix antarctica-longissima group Thalassiothrix sp. A	Thalassiothrix miocenica Trichotoxon reinboldii Genus and species unknown
T. lentiginosa	177-1092B- 1H-1, 60	1.15		А	M–P	R			R	F T	-	R	2	R		D		RT	R		R	2	RT	R	т						т	FR	С	R	٦		R	
T. lentiginosa	1H-2, 22	2.27		A	Р	RT		T	R F	-		R	2	т		A		RT			С		R	1	-				C T	R	Т	R	С	F R	T	R	R	
subzones b + a	177-1092A- 1H-1, 79–80	3.34	А		G	R		R T	TRI	R R		F		т		D		RT	Т				R	۲ ۲	тт	RT			Т			T R	С	R	<u>т</u>	R	R	
A. ingens	1H-2, 79–80 1H-3, 79–80	4.84 6.34	A A		G–M G–M	T F F		R	R R I T F I	{ {		R XR				D D		F R R	R F		R	? ?	T R T		T R	F R R					T T	R T	C F	R R R	F	T	F	
subzone c	1H-4, 79–80 1H-5, 79–80	7.84 9.34	A A		G G	F C		т	T R	TTT R	-	x				A A		T R T	T F		R	R	T R T		R R	R R T					R T F R R	R T T	C C	R R R	Т	T R	F F R	
	1H-CC, 7–12 2H-1, 79–80	10.55 12.41	А	A	M G	R C	R	R	R R	F R	Т	ХТ	- 	R		A C		R R T T	F F				Т	F F	R T	F R T R T					F F F R R T	R T R	C C	T R	т	T R	F C R	
A. ingens	2H-2, 79–80 2H-3, 79–80	13.91 15.41	A A		G	C F	T	R T T	T RI T FI	R R T	_	X		-		C C		ТТ	F R				Т		RR	RT					T F R R	RTT	F	TRR TR		R R	A A F	Т
sudzone d	2H-5, 79–80 2H-6, 79–80	18.41	A		G G-M		R		T F	R				R C		C C		R	R				R R	Т	R R	Т			R		R R	T		R R R	T	R	R R R F	T
A. ingens	3H-1, 79–80	23.02	A	A	G	T D	F	R	T	5	к Т	ХТ	R	СТ		F		Т	F				R	7	RT		Т	R	т	т	F	R T	C		T R	R	R R	I
subzone a	3H-4, 79–80 3H-6, 79–80	27.52	A A		G	R C T A	R	TT		F T	T T	XR	2 F F	R		A		R	Ť				R	R	R R T T	R F	T	R T F T	R		K	R R T	C	R R F T F F	F	F	R R R R	
	4H-2, 79–80 4H-3, 79–80	34.16	AA		G	C A	F R		R	R	R T	x	F F	F F		C F		R	т				R R T	R	T R T R T	т		F F	C F	T	T T R	R T T T	C	F	F R		R R	
P. barboi	4H-4, 79–80 4H-5, 79–80	37.16 38.66	A		G	C C	T		T	T R T	R	x	C F	F		R		R	T				Т	F R T	T R	R T	TR	A	F R R R R		T R R		F	R R R R	R F <sup>¬</sup>	R	R R T R	
	4H-6, 79–80 4H-7, 29–30	40.16 41.16	C C		G–M M	C A	Т		т			x	C F	F C		R R								A C	R T		T R	R			R		F F F R F	R R F R	C F	R	R R R R R	
T. kolbei/ F. matuyamae	4H-CC, 9–14 5H-1, 79–80	41.56 43.16	А	С	M G–M	C A	Т	R	Т	т		хт	C C	F F		RR	R C							C F F	T R	R	R R	Т	R R		Т	T	F R F	R R C R	C F	F	R R R	R
	5H-2, 79–80 5H-3, 79–80	44.66 46.16	A A		G–M G–M	TF RR	R	F	T T		R	T RX	C C	F		R	F R R		R T					C F 1	T R R	T T T T	R T T	T R		R R	R R		C R R C R C	ATR FR	T F R 7		R R T T R	R R
	5H-4, 79–80 5H-5, 1	47.66 48.37	A	С	G	T F	T		T R T	TR	F R	R X	A A	F R		T R	R			T	R T			F	R T		R T	T R		<u>т</u> Т			C R F F F	F F   C F	T R	T R	R T R	R
T. vulnifica	5H-5, 79–80 5H-6, 1	49.16 49.87	A	С	M M	R F T F	TT R FR R		т	Т	C A	R	A C	R T	R	R				R	T				Т	TF	F		Т	R R R F	ТТ		C F	R F R C	T T	R F	R	T
T inside (	5H-6, 79–80 5H-7, 29–30	50.66 51.29	A	0	G	T T		т	RТ	TTR		X	TF	т	R	R R	1	T F T	R A			R T		Т	т	R	R R	R	K I K T R R R	R R	TR		R F R R		т	F T	TR	R
F. weaveri	6H-1, 1	51.52 53.89	٨	A	M	R			R						т	R R T D T		R	A	Т	R	тт			- D	Т	тс		T	T R		T F T P	R T F	F K R F	т		R R	R
	6H-2, 1 6H-2, 79–80	55.39 56.18	A	А	M	RT				F						R C		'RT TT	A		RFR	т				R	R	RR	R R	R	т	F	R T C R R C		R T	т	R R R F	ĸ
-	6H-3, 1 6H-3, 79–80	56.89 57.68	A	С	M G-M				F R F	R	Т	x	F F	т	т	A A T	1	T F T	т		F T		T T		Т	F	R A	R	т	R R R T		TTF	T R R T	R R R R	T R	F	R R	
F. interfrigidaria	6H-4, 79–80 6H-6, 79–80	59.18 62.18	A A		G–M G	R R		Т	T R F R	R R F	R R	X R X	F F F R		R R	RA RAF	T F R F	RR RR		R F R	F C	T R	T T	R		R T	R C R	T R	T T	F F T		F	R R T T	R T R T R T	TR	T R R R	R R F	
	6H-CC, 0–10 7H-1, 1	62.72 64.19		C C	M M–P	R			TRR( F	C R F	R F	F X	F F F R R	R	R R	A T	F	RF RA			R		R	F 1	-	R	R T R T	R R	T T	R R R		T R	R R T	R R T R T F			R F	
	7H-1, 79–80 7H-1, 120–122	64.98 65.39	A C	]	M M	TT		R	C R F	R	— — — – F	R X R R X	R R R F	R T T R	T C F	R		F C A				T		R F	RRT		R T R	R R R R R	R	R R T	T	R T F R	т	R F T R R	т — — —	F R	R R	R
T. inura	7H-2, 79–80 7H-3, 1	66.48 67.19	А	С	G–M M–P	R R R T	R			F		X	R C F A	R F	R R R		F C	F		R	T R T	R R		R F	R T R R T	Т	F F T R	R R R R T F	F F R C R	R F R	R	T A F		F R T T		T R R	R R R R F	R R R
	7H-3, 79–80 7H-3, 112–113	67.98 68.31	A C	l	G M	R T T F		_ <u>T</u>		R	<u>F</u> T	x	F A F A	F		R	A F1	R TR		R T	R T R R	T T			- <u> </u>		R F R	₹ T Γ	R R T R R R R	R	R	R T F		R R <u>R R R</u>		R	R F	T
H. triangularus	7H-3, 142–143 7H-4, 79–80	68.61 69.48	A A	_	M	R R T T R	R	Т		R R	A C	т	R R F	т	F R R	RT	RF	RF RF	Т	T R T	R F	Ť T	_	R F	R R F		R T R R	R C C	R R R R F	R T A T T	R	T	R	T T R	т		F	F C T
(Miocene)	/H-5, 1	/0.19		С	М	R F T		R			F	Х	F		I F	к	R	К		к	к			]			C	K F A	R	к R	R		R	R			к R	К

Notes: Abundance: D = dominant, A = abundant, C = common, F = few, R = rare, T = trace, X = present. Preservation: G = good, M = moderate, P = Poor.

**Table T4.** Stratigraphic occurrence and relative abundance of diatom taxa from the Pliocene and Pleistocene, Site 1092. (Continued on next 11 pages.)

						is	
						val	
						r. o	6
						ulu: va iir	rius
						atti ens ens ster	M F
						un nge nge cars	b. p. p.
						us ci us ii us k us k us r	s sr s sr s sr hus
			<b>D</b>	<b>D</b> <sup>1</sup> · ·		ych ych	ych ych tyc
Diatom	Coro soction	Donth	Diatom	Diatom	Diatom	70C 70C 70C	10C 10C 10C
ZODE	interval (cm)	(mcd)	cleaned slide	uncleaned slide	preservation	cti cti cti	
20110	intervar (eni)	(mea)	cicanca silac	uncleaned shae	preservation	<b>4</b> 4 4 4 4	* * * * *
	177-1092B-						
T. lentiainosa	1H-1.60	1.15		А	M-P	R	
subzone c							
T. lentiainosa	1H-2, 22	2.27		А	Р	RT	-
	, , , , , , , , , , , , , , , , , , , ,						
	177-1092A-				_	_	
subzones b + a	1H-1, 79–80	3.34	A		G	R	
	1H-2, 79–80	4.84	A		G–M	TF	
A. ingens	1H-3, 79–80	6.34	A		G–M	F	
	1H-4, 79–80	7.84	A		G	F	
subzone c	1H-5, 79–80	9.34	A		G	C	
	1H-CC, 7–12	10.55		A	М	R	
	2H-1, 79–80	12.41	A		G	C	R
	2H-2, 79–80	13.91	A		G	C	
A. ingens	2H-3, 79–80	15.41	A		G	F	Т
subzone b	2H-5, 79–80	18.41	A		G	T D	F
	2H-6, 79–80	19.41	А		G–M	C	R
	2H-CC, 9–14	19.73		А	G	D	
A. ingens	3H-1, 79–80	23.02	А		G	T D	F
-	3H-2, 79–80	24.52	А		G–M	F	R
subzone a	3H-4, 79–80	27.52	А		G	RC	R
	3H-6, 79–80	30.52	A		G	ТА	TF
	4H-2, 79–80	34.16	A		G	С	F
	4H-3, 79–80	35.66	A		G	A	R
P. barboi	4H-4, 79–80	37.16	A		G	С	Т
	4H-5, 79–80	38.66	А		М	С	
	4H-6, 79–80	40.16	С		G–M	С	Т
	4H-7, 29–30	41.16	С		М	А	
T. kolbei/	4H-CC, 9–14	41.56		С	М	С	
F. matuyamae	5H-1, 79–80	43.16	А		G–M	А	T R
,	5H-2, 79–80	44.66	А		G–M	TF	
	5H-3, 79–80	46.16	А		G–M	RR	RF
	5H-4, 79–80	47.66	А		G	т т	
	5H-5, 1	48.37		С	М	F	+
T. vulnifica	5H-5, 79-80	49.16	А	-	М	RF TT	R
	5H-6, 1	49.87		С	М	TF FR	R
	5H-6, 79–80	50.66	С	-	М	T R R	
	5H-7, 29-30	51.29	A		G	т т	т
T insiana/	5H-CC 10-15	51.52		C	M	тт	
F. weaveri	6H-1, 1	53.89		Ā	м	R	
	6H-1, 79–80	54.68	А		M	TCF	F
	6H-2, 1	55 39		А	M	RT	· · ·
	6H-2, 79–80	56.18	А		M	RR	
	6H-3, 1	56.89		C	M	т.	+
	6H-3, 79–80	57.68	А	~	G–M	тт	
E interfriaidaria	6H-4, 79_80	59 18	A		G-M	R	
	6H-6, 79_80	62.18	A		6	R	
	6H-CC 0-10	62 72		C	M		
	7H-1, 1	64 19		č	 М–Р	R	
	· · · · / ·	/	1	~		1 **	1

Diatom zone	Core, section, interval (cm)	Alveus marinus	Asteromphalus hookeri	Asteromphalus hyalinus	Asteromphalus parvulus	Azpeitia nodulifer	Azpeitia tabularis	Azpeitia tabularis var. egregius	Azpeitia sp. A	Chaetoceros atlanticus	Chaetoceros spp. (resting spores)	Corethron criophilum	Coscinodiscus asteromphalus	Coscinodiscus marginatus	Coscinodiscus oculoides	Coscinodiscus oculus-iridis	Coscinodiscus radiatus	Coscinodiscus spp.	Ethmodiscus rex	Eucampia antarctica	Fragilariopsis arcula	Fragilariopsis aurica	Fragilariopsis barronii	Transition F. barronii/F. kerguelensis	Fragilariopsis clementia	Fragilariopsis curta	Fragilariopsis cylindrus	Fragilariopsis cf. donahuensis	Fragilariopsis cf. efferans	Fragilariopsis fossilis	Fragilariopsis fossilis var. A
T. lentiginosa	177-1092B- 1H-1, 60						R	F			F	т								R						R					
T. lentiginosa	1H-2, 22			Т	R		F	F												R						Т				-	
J	177-10924-																														
subzones b + a	1H-1, 79–80		R	Т	т		R	R			R									F						т					
	1H-2, 79–80		R		R		R	R												R											
A. ingens	1H-3, 79–80				Т		F	R		_		_							Х	R											
	1H-4, 79–80		-		Т			Т		Т		Т							v												
subzone c	1H-5, 79-80		I				R				R E								X	т											
	2H-1, 79–80		R				R				R				т				~	'				R							
	2H-2, 79–80		R		Т		R	R			R								Х												
A. ingens	2H-3, 79–80		Т	Т	т		F	R			Т								Х												
subzone b	2H-5, 79–80		Т													Т			Х	Т			Т	R							
	2H-6, 79–80				T		F	F			R								.,	R			T	C							
1 ingons	2H-CC, 9–14		р		T								к т						X	т			R	F		т					
A. Ingens	3H-1, 79-80 3H-2, 79-80		к	R	R			R					I						x	I			F	c		I					
subzone a	3H-4, 79–80		т	Т	Т			ĸ							т				x	R			F	R							
Subzone u	3H-6, 79–80		•	R	R	Т				F		т	т		•				X				F	F							
	4H-2, 79–80		Т	R	R					R					R								F	F							
	4H-3, 79–80		R	R	Т										Т				Х				F	F							
P. barboi	4H-4, 79–80				Т					Т	R				R				Х				С	F							
	4H-5, 79–80										Т												F	F							
	4H-6, 79–80				-														v				C	F							
T kolhai/	4H-7, 29-30				1		т												X				F	C E							
F matuvamae	5H-1 79_80									т									х	т			c	F							
n. matayamac	5H-2, 79–80					Т				•				R			т		~				c	F							
	5H-3, 79-80				т											Т		R	Х				С	F							
	5H-4, 79–80				Т		R		Т		R			F					Х				А	F							
	5H-5, 1						Т							R				R	Х				А	R							
T. vulnifica	5H-5, 79–80						_		Т					С						R			Α	R			Т		R		
	5H-6, 1						I							A									0								
	5H-0, 79-60 5H-7 29 30		т		D	т			т	т	D											т	E	т						D	D
T insiana/	5H-CC 10-15		'		N	'			'	'	F								х				F							ĸ	ĸ
F. weaveri	6H-1, 1						R				•								x			т	F								
	6H-1, 79–80							Т		R	R							R		R		R	F							Т	Т
	6H-2, 1																						F								R
	6H-2, 79–80	<u> </u>					_				F			_								Т	F								
	6H-3, 1	1					F				R			Т					v			-	R		-					-	
E interfrigidarie	0H-3, /9-80	1	т		к	т	F		P		P			D					X			F	F F		I					l D	D
r. interniyiuund	6H-6, 79-80	1	1			F	R		F		ĸ			R			R		x			F	г R							R	R
	6H-CC, 0–10	1			т	R	R	С			R			R			1 A		~			F	F			R				R	.,
	7H-1, 1	1				F		- '	F		-			F			F		Х		F	R	R			-				R	

Diatom zone	Core, section, interval (cm)	Fragilariopsis interfrigidaria	Fragilariopsis kerguelensis	Fragilariopsis lacrima	Fragilariopsis matuyamae	Fragilariopsis matuyamae var. heteropola	Fragilariopsis praecurta	Fragilariopsis praeinterfrigidaria	Fragilariopsis reinholdii	Fragilariopsis rhombica	Fragilariopsis ritscheri	Fragilariopsis ritscheri var. A	Fragilariopsis separanda	Fragilariopsis weaveri	Fragilariopsis sp. A (Gersonde, 1991)	Fragilariopsis sp.1	Fragilariopsis sp. 2	Hemidiscus cuneiformis	Hemidiscus cuneiformis var. A	Hemidiscus karstenii	Hemidiscus karstenii f. 1, sensu Ciesielski (1983)	Hemidiscus sp. 1	Navicula directa	Navicula wisei	Nitzschia interruptestriata	Nitzschia porteri	Nitzschia sicula var. bicuneata	Nitzschia sicula var. rostrata	Pleurosigma spp.	Porosira pseudodenticulata	Proboscia alata
<i>T. lentiginosa</i> subzone c	177-1092B- 1H-1, 60		D							R	т		R										R				R	т			
T. lentiginosa	1H-2, 22		А							R	Т									С							R				
-	177-10924-	1																													
subzones h + a	1H-1 79_80		D							R	т		т															R			
Subzones b T u	1H-2, 79–80		D							F			R										R				Т		R		
A. ingens	1H-3, 79–80		D							R	R		F										R								т
	1H-4, 79–80		Ā							Т			T															т	R		
subzone c	1H-5, 79–80		A							R	т		F										R								т
54525110 0	1H-CC 7-12		A							R	R		F																		•
	2H-1, 79–80		C							т	т		F															т			
	2H-2, 79-80		C							Ť	T		F																т		
A indens	2H-3, 79-80		ĉ							•	•		R																•		т
subzone b	2H-5, 79-80		ĉ							R	R		т																		•
Subzone b	2H-6, 79–80		c							R			R														R		R		
	2H-CC 9-14		F																												
A indens	3H-1 79_80		F								т																		R		
n. mgens	3H-2 79-80		Ċ							F	•		F														R		т		
subzone a	3H-4 79-80		Δ							R			Ť														Ň		R		
Subzone u	3H-6 79-80		ĉ							т			'																ĸ		
	4H-2 79-80		c							R																			R		
	4H-3 79-80		F							R					т												R		N	т	
P harhoi	4H-4 79-80		R							Ň					Ť												Ň			Ť	
1. Durbor	4H-5 79_80		т								R				R																
	4H-6 79-80		R												I.																
	4H-7 29 30		D																												
T kolhai/	4H-CC 9 14	P	D		D																										
E matuvamae	5H-1 79_80		Ň		C																										
n. matayamat	5H-2 79-80		R		F	R																									
	5H-3, 79-80				R							R			т																
	5H-4, 79–80		т												-		т			R		т									
	5H-5, 1		R		R																										
T. vulnifica	5H-5, 79–80																R			Т											
	5H-6, 1	R																													
	5H-6, 79–80	R																													
	5H-7, 29–30	R						Т	F			R		А										R		Т					
T. insigna/	5H-CC, 10–15	F									Т			А																	
F. weaveri	6H-1, 1	R							R					А				Т		R											
	6H-1, 79–80	R	Т					Т						F				Т		Т				Т		Т					
	6H-2, 1	С							R		Т			А						R	F	R									
	6H-2, 79–80	А						Т	Т					R										Т							
	6H-3, 1	Α						Т	F											F								Т			
	6H-3, 79–80	А		т					Т					Т						Т								Т			
F. interfrigidaria	6H-4, 79–80	А					Т	R	R									R		F				Т				Т			
	6H-6, 79–80	А		F			R	R	R									F	R	С					R			Т			
	6H-CC, 0–10	А		Т				R	F											R								R			
	7H-1, 1	1						R	А																						

Diatom zone	Core, section, interval (cm)	Proboscia barboi	Pseudo-nitzschia heimii	Pseudo-nitzschia turgiduloides	Rhizosolenia antennata f. antennata	Rhizosolenia antennata f. semispina	Rhizosolenia hebetata f. semispina	Rhizosolenia polydactyla f. polydactyla	Rhizosolenia styliformis	Rhizosolenia sp. cf. styliformis (big form)	<i>Rhizosolenia</i> sp. B	Rouxia antarctica	Rouxia constricta	Rouxia cf. californica	Rouxia heteropolara	Rouxia heteropolara var. A	Rouxia isopolica	Rouxia leventerae	Rouxia naviculoides	Rouxia sp. A	Stellarima microtrias	Stephanopyxis turris group	Thalassionema bacillaris	Thalassionema nitzschioides	Thalassionema nitzschioides f. 1	Thalassionema nitzschioides var. cf. antiqua	Thalassionema nitzschioides var. capitulata	Thalassionema nitzschioides var. incurvata	Thalassionema nitzschioides var. inflata	Thalassionema nitzschioides var. lanceolata	Thalassionema nitzschioides var. parva
<i>T. lentiginosa</i> subzone c	177-1092B- 1H-1, 60		R			т	т																								
T. lentiginosa	1H-2, 22					Т																					С			Т	R
	177-1092A-																														
subzones b + a	1H-1, 79–80					Т	Т	Т					R	Т													Т				
A	1H-2, 79–80						T						F	R																	
A. Ingens	1H-3, 79-80 1H-4 79-80						R						R																		
subzone c	1H-5, 79–80						R						R	т																	
	1H-CC, 7–12					R							F	R																	
	2H-1, 79–80			Т		R	R	Т			Т		R	Т																	
	2H-2, 79–80				Т								R	Т																	
A. ingens	2H-3, 79–80				Т	R	R	R																							
subzone b	2H-5, 79–80			_			Т	_			_																_				
	2H-6, 79–80			Т		-		R			Т																R				
A	2H-CC, 9–14					I T	R	ĸ										т						п			т				
A. Ingens	3H-1, 79-60 2H 2 70 80					I	R	I D										I	с					к с	D		1				
subzone a	3H-2, 79-80 3H-4, 79-80						R	R				R							т					г R	ĸ		R				
30020112 0	3H-6, 79–80			R			Т	Т				F							R		т			F	т		Ň				
	4H-2, 79–80						Т	R			Т													F	-		С				
	4H-3, 79–80	R				Т	Т	R		Т														F	Т		F				
P. barboi	4H-4, 79–80	F		R		Т	Т	R			R	Т						Т						А			F		R	R	
	4H-5, 79–80	А					R												R					F			R			R	
	4H-6, 79–80	А					R	Т											Т					R							
	4H-7, 29–30	C				Т													R					R							
T. kolbei/	4H-CC, 9–14	C					-												R				-								
<i>г. та</i> шуатае	5H-1, /9-80					к				к		к т							R				I	т			к			к	
	5H-2, 79-60 5H-3, 79, 80	E				т	P	D			т	Т	т					т	т					D D							
	5H-4, 79–80	Ľ				Ť	R	ĸ			'		'					'	R					Т							
	5H-5, 1	F				-	Т												T					R							
T. vulnifica	5H-5, 79–80						Т				Т	F							F							Т					
	5H-6, 1																														
	5H-6, 79–80											Т														R	Т	R			
	5H-7, 29–30	Т					Т					R					R		R					R		Т	R	R	R		
T. insigna/	5H-CC, 10–15					-						-												F	_		R				_
F. weaveri	6H-1, 1					I	р				т		т				т		г					F	R T		1				1
	6H-2 1	1				к	ĸ				I	P	I				<b>'</b>		P					F	I D		Р			P	
	6H-2, 79-80	1										n n							R			R		R	N		n			IX.	
	6H-3, 1	1																	~					~			-				
	6H-3, 79–80	1					т					F					R		А			R					т				
F. interfrigidaria	6H-4, 79–80	1		R								R					R		С			Т					Т				
	6H-6, 79–80	R										Т					R						R				Т				
	6H-CC, 0–10	Т				Т						R				R	Т		R			R		R			Т				
	7H-1, 1	F				Т						1							Т								Т				

# Table T4 (continued).

Diatom zone	Core, section, interval (cm)	Thalassiosira antarctica	Thalassiosira complicata	Thalassiosira convexa	Thalassiosira convexa var. aspinosa	Thalassiosira eccentrica	Thalassiosira elliptipora	Thalassiosira elliptipora var. A	Thalassiosira fasciculata	Thalassiosira frenguelliopsis/frenguelli group	Thalassiosira gracilis	Thalassiosira gracilis var. expecta	Thalassiosira gravida	Thalassiosira insigna	Thalassiosira inura	Thalassiosira insigna/T. inura transition form	Thalassiosira kolbei (flat type)	Thalassiosira kolbei (convex type)	Thalassiosira lentiginosa	Thalassiosira cf. leptopus	Thalassiosira lineata	Thalassiosira oestrupii	Thalassiosira oliverana var. 3	Thalassiosira oliverana var. 4	Thalassiosira ritscheri	Thalassiosira striata	Thalassiosira symmetrica	Thalassiosira tetraoestrupii var. reimeri	Thalassiosira trifulta	Thalassiosira tumida	Thalassiosira vulnifica
<i>T. lentiginosa</i> subzone c	177-1092B- 1H-1, 60					т					F		R						С			R							т		
T. lentiginosa	1H-2, 22					Т					R								С			F		R			Т			R	
	177-1092A-																														
subzones b + a	1H-1, 79–80										Т	R							С					R					Т	R	
	1H-2, 79–80									Т		Т							С					R						Т	
A. ingens	1H-3, 79–80									Т	R								F			R		R					R		
	1H-4, 79–80								R	Т	R	Т							С			R		R	Т					Т	
subzone c	1H-5, 79–80						F	R	R			Т							С					R						R	
	1H-CC, 7–12						_	F	F	_	R	Т							С			_		Т				_		Т	
	2H-1, 79–80						F	R	R	Т	R								C			Т		R				<u> </u>		R	
	2H-2, 79–80						Т	F	R		_	-	-						F		Т	R		R						R	
A. ingens	2H-3, 79–80								R		R	Т	Т						F			Т		R						R	
subzone b	2H-5, 79–80								R		T								F		_	_		R				-		_	
	2H-6, 79–80								R		Т								C		R	R		R				<u> </u>		R	-
	2H-CC, 9–14				-				R		_	-							F			R		T	-			R		_	
A. ingens	3H-1, 79–80				Т				F		R	Т							C			R		R	Т			R		R	
	3H-2, 79–80								R		R								C		_	F		R				R		-	
subzone a	3H-4, 79–80										R	-							C		R	R		F				F		F	
	3H-6, 79–80			-					-	-	R	T							F		Т	F		F				C	_	R	
	4H-2, 79–80			T					T	Т	R	T	_						C			F		F				F	R		
	4H-3, 79–80						-		R			1	I						C			R		F				F	R	1	
P. barboi	4H-4, 79–80								R										F			R		R				R	-	R	
	4H-5, 79-80								К								F		F			K		R				-F	I		
	4H-6, 79–80																		F			K		ĸ				C			
T balles!	4H-7, 29-30								ĸ					-				к	F					ĸ				F			
T. KOIDEI/	4H-CC, 9-14								1				т	1			F		к г			ĸ		R				С г			
r. matayamae	54 2 70 80				D								1				C	D	г D				т	R D	т			г с			
	511-2, 79-60				R D	D	D											r. D	к С				I	R D	1			г D	т		
	5H-4 79 80				т	N	R											D	E			F		E				ĸ	Ť		т
	5H-5 1				T												F	N	F			C		F				R			- R
T vulnifica	5H-5, 79-80			R	R				т	т									Ċ			R		F				т	т		R
i. vuinneu	5H-6, 1			R	F				•	•									F				R	Ċ				•	•		F
	5H-6, 79–80			R	T									Α	F		C		C			R		F							F
	5H-7, 29-30			R	R				Т	R			Т	С	С	R	F	R	R		т	F	R	F	Т						
T. insiana/	5H-CC, 10-15													F	F		R		R			F		R							
F. weaveri	6H-1, 1				R									Т	F	R	Т		F			R		F							
	6H-1, 79–80													Т	R		A	F	F			R	R	R			Т				
	6H-2, 1														F	R	Т		С			Т		F							
	6H-2, 79–80		R						Т						F	R	R		С		Т		R	R	R	Т				Т	
	6H-3, 1		R														Т		R			R		R							
	6H-3, 79–80		R		Т						Т	Т			F		R		Т			R		R	Т	R					
F. interfrigidaria	6H-4, 79–80		F												F		R		R	Т		R	Т	R	Т	R				Т	
	6H-6, 79–80		F		Т										R					Т	Т	R		Т							
	6H-CC, 0–10		R												Т				R		R	R		Т							
	7H-1, 1		R		R										R		1		R	Т	R	T		F			1				

5

Diatom zone	Core, section, interval (cm)	Thalassiosira sp. B	Thalassiosira sp. C	Thalassiosira sp. D	Thalassiosira sp. F	Thalassiothrix antarctica-longissima group	Thalassiothrix sp. A	Thalassiothrix miocenica	Trichotoxon reinboldii	Genus and species unknown
<i>T. lentiginosa</i> subzone c	177-1092B- 1H-1, 60					R				
T. lentiginosa	1H-2, 22					R				
subzones b + a	177-1092A- 1H-1, 79–80					R				
A indens	1H-2, 79–80 1H-3 79–80					F				
A. Ingens	1H-4, 79–80					F				
subzone c	1H-5, 79–80					F	R			
	1H-CC, 7–12 2H-1, 79–80					F C	R			
	2H-2, 79–80					A				
A. ingens	2H-3, 79–80					Α	F		Т	
subzone b	2H-5, 79–80 2H-6, 79–80					R	F		т	
	2H-CC, 9–14								Ť	
A. ingens	3H-1, 79–80					R	R			
subzone a	3H-2, 79-80 3H-4 79-80					R	R			
30520112 0	3H-6, 79–80					R	R			
	4H-2, 79–80					R	R			
P. harboi	4H-3, 79–80					R	R			
r. Duidoi	4H-4, 79–80 4H-5, 79–80			т		R	ĸ			
	4H-6, 79–80			R		R	R			
<b>T</b> I II ''	4H-7, 29–30					R	Т			
I. KOIDEI/ E matuvamae	4H-CC, 9–14 5H-1, 79–80			R		R	R			к
n matay amac	5H-2, 79–80					R	R			R
	5H-3, 79–80				Т	Т	R			R
	5H-4, 79-80 5H-5, 1					R	1			к
T. vulnifica	5H-5, 79–80						т			Т
	5H-6, 1					R				
	5H-6, 79–80 5H-7, 29–30		т			т	R			к R
T. insigna/	5H-CC, 10–15					R	R			
F. weaveri	6H-1, 1					R	R		R	
	6H-1, 79-80 6H-2 1					R	R			К
	6H-2, 79–80		Т			R	F			
	6H-3, 1		-			-	R			
E interfriaidaria	6H-3, 79-80 6H-4, 79-80	R	F			R	R			
giaana	6H-6, 79–80	R	R			Ň	F			
	6H-CC, 0–10					R				
	7H-1, 1						F			

Table T4 (continued).

T. inura       TH-1, 79–80       64.98       A       M       T	Diatom zone	Core, section, interval (cm)	Depth (mcd)	Diatom abundance, cleaned slide	Diatom abundance, uncleaned slide	Diatom preservation	Actinocyclus curvatulus	Actinocyclus ingens	Actinocyclus ingens var. ovalis	Actinocyclus karstenii	Actinocyclus maccollumii	Actinocyclus octonarius	Actinocyclus sp. F	Actinocyclus sp. I	Actinocyclus sp. M	Actinoptychus senarius
TH-3, 142–143       68.61       A       M       R	T. inura H. triangularus	7H-1, 79-80 7H-1, 120-122 7H-2, 79-80 7H-3, 1 7H-3, 79-80 7H-3, 112-113 7H-3, 142-143 7H-4, 79-80	64.98 65.39 66.48 67.19 67.98 68.31 68.61 69.48	$\begin{array}{c} - & - & - & - & - & - & - & - & - & - $	c	M G-M M-P G M M	T R R T T	T R R T R T	T F R R	R R	_				R	

Notes: Abundance: D = dominant, A = abundant, C = common, F = few, R = rare, T = trace, X = present. Preservation: G = good, M = moderate, P = Poor.

Diatom zone	Core, section, interval (cm)	Alveus marinus	Asteromphalus hookeri	Asteromphalus hyalinus	Asteromphalus parvulus	Azpeitia nodulifer	Azpeitia tabularis	Azpeitia tabularis var. egregius	<i>Azpeitia</i> sp. A	Chaetoceros atlanticus	Chaetoceros spp. (resting spores)	Corethron criophilum	Coscinodiscus asteromphalus	Coscinodiscus marginatus	Coscinodiscus oculoides	Coscinodiscus oculus-iridis	Coscinodiscus radiatus	Coscinodiscus spp.	Ethmodiscus rex	Eucampia antarctica	Fragilariopsis arcula	Fragilariopsis aurica	Fragilariopsis barronii	Transition F. barronii/F. kerguelensis	Fragilariopsis clementia	Fragilariopsis curta	Fragilariopsis cylindrus	Fragilariopsis cf. donahuensis	Fragilariopsis cf. efferans	Fragilariopsis fossilis	Fragilariopsis fossilis var. A
T. inura T. inura H. triangularus	7H-1, 79-80 7H-1, 120-122 7H-2, 79-80 7H-3, 1 7H-3, 79-80 7H-3, 112-113 7H-3, 142-143 7H-4, 79-80					C F	R		·		R F R R R	T		F F F A C	_		R R T	R	x x x x	_	R R R F F R	R F C A A R F	_		R R F F T		T	R	T	C F R R F R	R R

Diatom zone	Core, section, interval (cm)	Fragilariopsis interfrigidaria	Fragilariopsis kerguelensis	Fragilariopsis lacrima	Fragilariopsis matuyamae	Fragilariopsis matuyamae var. heteropola	Fragilariopsis praecurta	Fragilariopsis praeinterfrigidaria	Fragilariopsis reinholdii	Fragilariopsis rhombica	Fragilariopsis ritscheri	Fragilariopsis ritscheri var. A	Fragilariopsis separanda	Fragilariopsis weaveri	Fragilariopsis sp. A (Gersonde, 1991)	Fragilariopsis sp.1	Fragilariopsis sp. 2	Hemidiscus cuneiformis	Hemidiscus cuneiformis var. A	Hemidiscus karstenii	Hemidiscus karstenii f. 1, sensu Ciesielski (1983)	Hemidiscus sp. 1	Navicula directa	Navicula wisei	Nitzschia interruptestriata	Nitzschia porteri	Nitzschia sicula var. bicuneata	Nitzschia sicula var. rostrata	Pleurosigma spp.	Porosira pseudodenticulata	Proboscia alata
— — — — — — T. inura — — — — — — H. triangularus	7H-1, 79-80 7H-1, 120-122 7H-2, 79-80 7H-3, 1 7H-3, 79-80 7H-3, 112-113 7H-3, 142-143 7H-4, 79-80	-	 т	R		_	F C A F R	F T R R	C A F R F F				_	 		T R	R R		_	T R R R F	R T T R			R		T R T T T		_			
(Miocene)	7H-5, 1						R		R							R				R											

Diatom zone	Core, section, interval (cm)	Proboscia barboi	Pseudo-nitzschia heimii	Pseudo-nitzschia turgiduloides	Rhizosolenia antennata f. antennata	Rhizosolenia antennata f. semispina	Rhizosolenia hebetata f. semispina	Rhizosolenia polydactyla f. polydactyla	Rhizosolenia styliformis	Rhizosolenia sp. cf. styliformis (big form)	Rhizosolenia sp. B	Rouxia antarctica	Rouxia constricta	Rouxia cf. californica	Rouxia heteropolara	Rouxia heteropolara var. A	Rouxia isopolica	Rouxia leventerae	Rouxia naviculoides	Rouxia sp. A	Stellarima microtrias	Stephanopyxis turris group	Thalassionema bacillaris	Thalassionema nitzschioides	Thalassionema nitzschioides f. 1	Thalassionema nitzschioides var. cf. antiqua	Thalassionema nitzschioides var. capitulata	Thalassionema nitzschioides var. incurvata	Thalassionema nitzschioides var. inflata	Thalassionema nitzschioides var. lanceolata	Thalassionema nitzschioides var. parva
	7H-1, 79–80	R				R	R	R	T				_	_		·	R		_	_	R		R	R		_	R	_		·	
	7H-1, 120–122	T					-		_		-				Т		T		R		R	_	_	R	-	-	_				
I. inura	/H-2, /9–80	R				R		R	R		I						F T		F		R	R	R	R	1	F	F			R	р
	7⊓-3,1 7H_3,70,80	R		т	т	I	1										I P		R E	D	т			F		D		т		R	к
	7H-3, 112–113	R		'		т											IX.		R	Т	'			R		R	R		R	ĸ	
	7H-3, 142–143	R				F	R					┢	—	—	-	R	+ -		Ξ.	R	С			- <u>c</u>		R	R	R	R		R
H. triangularus	7H-4, 79–80	F				R	F								Т	R	R			Т	R			F				F			А
(Miocene)	7H-5, 1					Т										С				R	F			А				R			R

Diatom zone	Core, section, interval (cm)	Thalassiosira antarctica	Thalassiosira complicata	Thalassiosira convexa	Thalassiosira convexa var. aspinosa	Thalassiosira eccentrica	Thalassiosira elliptipora	Thalassiosira elliptipora var. A	Thalassiosira fasciculata	Thalassiosira frenguelliopsis/frenguelli group	Thalassiosira gracilis	Thalassiosira gracilis var. expecta	Thalassiosira gravida	Thalassiosira insigna	Thalassiosira inura	Thalassiosira insigna/T. inura transition form	Thalassiosira kolbei (flat type)	Thalassiosira kolbei (convex type)	Thalassiosira lentiginosa	Thalassiosira cf. leptopus	Thalassiosira lineata	Thalassiosira oestrupii	Thalassiosira oliverana var. 3	Thalassiosira oliverana var. 4	Thalassiosira ritscheri	Thalassiosira striata	Thalassiosira symmetrica	Thalassiosira tetraoestrupii var. reimeri	Thalassiosira trifulta	Thalassiosira tumida	Thalassiosira vulnifica
T. inura H. triangularus (Miocene)	7H-1, 79-80         7H-1, 120-122         7H-2, 79-80         7H-3, 1         7H-3, 79-80         7H-3, 112-113         7H-3, 142-143         7H-4, 79-80         7H-5, 1	T T	R T F	т	R R R R					R R R R R R	R T T	R	т _	_	F R A F R T				T	R	R T R	F R F T R T T	R	T R R R R	 т	т		_	_	т	

Diatom zone	Core, section, interval (cm)	Thalassiosira sp. B	Thalassiosira sp. C	Thalassiosira sp. D	Thalassiosira sp. F	Thalassiothrix antarctica-longissima group	Thalassiothrix sp. A	Thalassiothrix miocenica	Trichotoxon reinboldii	Genus and species unknown
	7H-1, 79–80	-	F	R		R	-		R	
	7H-1, 120–122	_				_	R	_	_	
T. inura	7H-2, 79–80	R	р		р	R	R	R	R	
	7H-3, 79_80	R	ĸ		ĸ	ĸ	R	ĸ	т	
	7H-3, 112–113						F	т		
	7H-3, 142–143						F	F		
H. triangularus	7H-4, 79–80						F	С	Т	
(Miocene)	7H-5, 1				R		R	R		