



Supplement of

Implication of methodological uncertainties for mid-Holocene sea surface temperature reconstructions

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Supplementary Material

Implication of sensor and analytical uncertainties for mid-Holocene sea surface temperature reconstructions

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The SI contains (a) details of the sites used in these analyses (SI Table 1) and references to the primary data, (b) details of the reconstructions at individual sites (SI Table 2, 3, and 4), and (c) grid cell reconstruction (SI Table 5). It also contains seasonal plots showing the impact of using different baseline climates on seasonal sea-surface temperature (SST) reconstructions (SI Figure 1 and 2) and the impact of using different time windows (SI Figure 3 and 4). We also include plots showing the reconstructions obtained from different sensor along latitudinal gradients within individual ocean basins (SI Figure 5).

All data including additional information on the age models of previously unpublished data sets are available on www.pangaea.de. The complete data set can be accessed via [doi:10.1594/PANGAEA.830811](https://doi.org/10.1594/PANGAEA.830811), while the age models for previously unpublished records are available via doi.pangaea.de/10.1594/PANGAEA.830814.

Table 1: MH sea surface temperature records used in this study

Core ID	Lat.[°] -S, +N	Long.[°] -W, +E	Ocean	water depth [mbsf]	Proxy	Reference	Study
MD85674	3.18	50.43	Indian Ocean	4875	Alkenone	Bard et al., 1997	GHOST
MD77194	10.47	75.23	Indian Ocean	1222	Alkenone	Sonzogni et al., 1998	GHOST
TY93-905	11.07	51.95	Indian Ocean	1567	Alkenone	Kim et al., 2004	GHOST
SO93-126KL	19.97	90.03	Indian Ocean	1253	Alkenone	Kudrass et al., 2001	GHOST
SO90-93KL	23.58	64.22	Indian Ocean	1802	Alkenone	Schulz et al., 2002; Emeis, unpublished data	GHOST
MD05-2928	-11.29	148.86	Pacific	2250	Alkenone	Shiau et al., 2011	this study
SO139-74KL	-6.54	103.83	Indian Ocean	1690	Alkenone	Lückge et al., 2009	GHOST
GeoB10038-4	-5.94	103.25	Indian Ocean	1819	Alkenone	Mohtadi et al., 2010	this study
18287-3	5.65	110.65	Indian Ocean	598	Alkenone	Kienast et al., 2001	GHOST
GIK18287-3	5.98	110.65	Indian Ocean	598	Alkenone	Steinke et al., 2001	this study
17964	6.16	112.21	Indian Ocean	1556	Alkenone	Pelejero et al., 1999a,b; Wang et al., 1999	GHOST
MD97-2151	8.73	109.87	Indian Ocean	1598	Alkenone	Zhao et al., 2006	GHOST
18252-3	9.23	109.38	Indian Ocean	1273	Alkenone	Kienast et al., 2001	GHOST
MD01-2392	9.85	110.21	Indian Ocean	1966	Alkenone	Xie et al., 2007	this study

ODP977	36.03	-1.96	Mediterranean Sea	1984	Alkenone	Martrat et al., 2004 Cacho et al., 1999	GHOST
MD95-2043	36.14	-2.62	Mediterranean Sea	1841	Alkenone	Cacho et al., 1999	GHOST
RL11	36.75	17.72	Mediterranean Sea	3376	Alkenone	Emeis et al., 2000	GHOST
M40-4-SL78/78MUC8	37.04	13.19	Mediterranean Sea	470	Alkenone	Emeis and Dawson, 2003b; Emeis and Schulz, unpublished data	GHOST
BS79-33	38.26	14.03	Mediterranean Sea	1282	Alkenone	Cacho et al., 2001	GHOST
BS79-38	38.41	13.58	Mediterranean Sea	1489	Alkenone	Cacho et al., 2002	GHOST
M44-KL71	40.84	27.76	Mediterranean Sea	566	Alkenone	Sperling et al., 2003	GHOST
AD91-17	40.87	18.64	Mediterranean Sea	844	Alkenone	Giunta et al., 2001	GHOST
GeoB4905-4	2.50	9.39	North Atlantic	1328	Alkenone	Weldeab et al., 2007	GHOST
ODP1002C	10.71	-65.17	North Atlantic	893	Alkenone	Herbert and Schuffert, 2000; Peterson et al., 2000	GHOST
M35003-4	12.08	-61.25	North Atlantic	1299	Alkenone	Rühlemann et al., 1999	GHOST
74KL	14.32	57.35	North Atlantic	3212	Alkenone	Kim et al., 2004	GHOST
BOFS 31K	19.00	-20.17	North Atlantic	3300	Alkenone	Zhao et al., 1995; Chapmann et al., 1996	GHOST
GeoB7926-2	20.22	-18.45	North Atlantic	2500	Alkenone	Romero et al., 2008	GHOST
ODP658C	20.75	-18.58	North Atlantic	2263	Alkenone	Zhao et al., 1995,	GHOST

GeoB5546-2	27.54	-13.74	North Atlantic	1072	Alkenone	deMenocal et al., 2000 Freudenthal, unpublished	GHOST
GeoB5844-2	27.71	34.68	North Atlantic	963	Alkenone	Arz et al., 2003	GHOST
GeoB6007	30.85	-10.27	North Atlantic	583	Alkenone	Kim et al., 2007	GHOST
ODP969E	33.84	24.88	North Atlantic	2201	Alkenone	Emeis et al., 2003c	GHOST
ODP967D	34.07	32.73	North Atlantic	2551	Alkenone	Emeis et al., 2000	GHOST
M39-008	36.38	-7.08	North Atlantic	576	Alkenone	Cacho et al., 2001	GHOST
GeoB5901-2	36.38	-7.07	North Atlantic	574	Alkenone	Kim et al., 2004	GHOST
CH07-98-GGC19	36.87	-74.57	North Atlantic	1049	Alkenone	Sachs et al., 2007	GHOST
SU81-18	37.77	-10.18	North Atlantic	3135	Alkenone	Bard et al., 2000	GHOST
MD95-2042	37.80	-10.17	North Atlantic	3146	Alkenone	Pailler and Bard, 2002	GHOST
MD01-2443	37.88	-10.18	North Atlantic	2925	Alkenone	Martrat et al., 2007	GHOST
D13882	38.63	-9.45	North Atlantic	88	Alkenone	Rodrigues et al., 2009	GHOST
OCE326-GGC26	43.48	-54.87	North Atlantic	3975	Alkenone	Sachs et al., 2007	GHOST
OCE326-GGC30	43.88	-62.80	North Atlantic	250	Alkenone	Sachs et al., 2007	GHOST
IOW225517	57.67	7.09	North Atlantic	293	Alkenone	Emeis et al., 2003a	GHOST
IOW225514	57.84	8.70	North Atlantic	420	Alkenone	Emeis et al., 2003a	GHOST
MD95-2015	58.76	-25.96	North Atlantic	2630	Alkenone	Marchal et al., 2002	GHOST
MD95-2011	66.97	7.63	North Atlantic	1048	Alkenone	Calvo et al., 2002	GHOST
JR51-GC35	67.00	-17.96	North Atlantic	420	Alkenone	Bendle and Rosell-Méléné, 2007	GHOST
M23258-2	75.00	13.97	North Atlantic	1768	Alkenone	Marchal et al.,	GHOST

MD97-2120	-45.53	174.93	Pacific	1210	Alkenone	2002; Sarnthein et al., 2003 Pahnke and Sachs, 2006	GHOST
SO136-GC11	-43.44	167.85	Pacific	1556	Alkenone	Barrows et al., 2008	GHOST
ODP1233	-41.01	-74.45	Pacific	838	Alkenone	Lamy et al., 2004; Kaiser et al., 2005, Lamy et al., 2007	GHOST
GeoB3313-1	-41.00	-74.45	Pacific	852	Alkenone	Lamy et al., 2002	GHOST
MD97-2121	-40.38	177.99	Pacific	3014	Alkenone	Pahnke and Sachs, 2006	GHOST
GIK17748-2	-32.75	-72.03	Pacific	2545	Alkenone	Kim et al., 2002b	GHOST
GeoB7139-2	-30.20	-71.98	Pacific	3270	Alkenone	Kaiser et al., 2008	GHOST
V19-30	-3.38	-83.52	Pacific	3091	Alkenone	Koutavas and Sachs, 2008	GHOST
V19-28	-2.51	-84.65	Pacific	2720	Alkenone	Koutavas and Sachs, 2008	GHOST
V21-30	-1.22	-89.68	Pacific	617	Alkenone	Koutavas and Sachs, 2008	GHOST
V19-27	-0.47	-82.67	Pacific	1373	Alkenone	Koutavas and Sachs, 2008	GHOST
ME0005A-24JC	1.50	-86.49	Pacific	2941	Alkenone	Kienast et al., 2006	GHOST
KNR176-JPC32	4.85	-77.96	Pacific	2200	Alkenone	Pahnke et al., 2007	GHOST
MD02-2529	8.21	-84.12	Pacific	1619	Alkenone	Leduc et al., 2007	GHOST
SCS90-36	18.00	111.49	Pacific	2050	Alkenone	Huang et al., 1997	GHOST
17940-2	20.12	117.38	Pacific	1727	Alkenone	Pelejero et al., 1999a; Wang et al., 1999	GHOST

PC17	21.36	-158.19	Pacific	503	Alkenone	Lee et al., 2001	GHOST	
LAPAZ21P	22.99	-109.47	Pacific	624	Alkenone	Herbert et al., 2001	GHOST	
ST.19	31.10	138.67	Pacific	3336	Alkenone	Sawada and Handa, 1998	GHOST	
ODP1012B	32.28	-118.38	Pacific	1772	Alkenone	Herbert et al., 2001	GHOST	
ST.14	32.67	138.46	Pacific	3252	Alkenone	Sawada and Handa, 1998	GHOST	
ODP1017E	34.54	-121.11	Pacific	955	Alkenone	Kennett et al., 2000; Ostertag-Henning and Stax, 2000	GHOST	
SSDP-102	34.95	128.88	Pacific	40	Alkenone	Kim et al., 2004	GHOST	
ODP1019C	41.68	-124.93	Pacific	980	Alkenone	Barron et al., 2003	GHOST	
W8709A-8TC	42.54	-127.68	Pacific	3111	Alkenone	Prahl et al., 1995	this study	
MD01-2412	44.53	145.04	Pacific	1225	Alkenone	Harada et al., 2006	GHOST	
MR00-K03-PC01	46.19	152.32	Pacific	2793	Alkenone	Harada et al., 2004	this study	
GGC15	48.17	151.34	Pacific	1980	Alkenone	Keigwin et al., 1998; Ternois et al., 2000	GHOST	
JT96-0909pc	48.91	-126.89	Pacific	920	Alkenone	Kienast and McKay, 2001	GHOST	
PC4	49.49	146.13	Pacific	664	Alkenone	Seki et al., 2004	GHOST	
PC2	50.40	148.32	Pacific	1258	Alkenone	Seki et al., 2004	GHOST	
TN057-21PC	-41.13	8.80	South Atlantic	4981	Alkenone	Pahnke and Sachs, 2006; Sachs and Anderson, 2003	GHOST	

GeoB1710-3	-23.43	11.69	South Atlantic	1045	Alkenone	Kirst et al., 1999	this study
GeoB1711-4	-23.31	12.37	South Atlantic	1967	Alkenone	Kirst et al., 1999	this study
GeoB1712-4	-23.26	12.81	South Atlantic	998	Alkenone	Kirst et al., 1999	this study
MD79257	-20.40	36.33	South Atlantic	1262	Alkenone	Duplessy et al., 1991; Bard et al., 1997; Sonzogni et al., 1998	GHOST
GeoB1023-5	-17.16	11.01	South Atlantic	1978	Alkenone	Kim et al., 2002a	GHOST
ODP1078C	-11.92	13.40	South Atlantic	426	Alkenone	Kim et al., 2003	GHOST
GeoB6518-1	-5.59	11.22	South Atlantic	962	Alkenone	Schefuss et al., 2005	GHOST
GeoB 3129-1	-4.61	-36.64	South Atlantic	830	Alkenone	Kim, unpublished data	GHOST
GeoB3910-2	-4.02	-36.35	South Atlantic	2362	Alkenone	Jaeschke et al., 2007	GHOST
MD94-103	-45.58	86.53	Southern Ocean	3560	Alkenone	Sicre et al., 2005	GHOST
MD03-2611	-36.73	136.55	Southern Ocean	2420	Alkenone	Calvo et al., 2007	GHOST
PL-96-112	71.27	42.61	Arctic Sea	286	Dinocysts	Voronina et al., 2001; de Vernal et al., 2013a	this study
HLY0501-05	72.69	-157.52	Arctic Sea	415	Dinocysts	McKay et al., 2008; de Vernal et al., 2013a	this study
HU-91-039-008	77.27	-74.32	Arctic Sea	663	Dinocysts	Levac et al., 2001; de Vernal and Hillaire-Marcel, 2006; de Vernal et al., 2013a	this study
MD95-2043	36.14	-2.62	Mediterranean Sea	1841	Dinocysts	Ruis-Zargouni, 2010	this study
ODP Leg 161 Site	36.21	-4.31	Mediterranean	1108	Dinocysts	Combourieu-	this study

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MD99-2346	42.04	4.15	Mediterranean Sea	2089	Dinocysts	Nebout et al., 1999; 2002 Ruis-Zargouni, 2010; Ruis-Zargouni et al., 2010	this study	
MD04-2747 CQ	36.95	11.67	Mediterranean Sea	770	Dinocysts	Ruis-Zargouni, 2010; Ruis-Zargouni et al., 2010	this study	
MD01-2430	40.80	27.73	Mediterranean Sea	580	Dinocysts	Londeix et al., 2009	this study	
HU-90-031-044	44.49	-55.19	North Atlantic	1381	Dinocysts	de Vernal and Hillaire-Marcel, 2006	this study	
MD-95-2033	44.66	-55.62	North Atlantic	1412	Dinocysts	de Vernal and Hillaire-Marcel, 2006	this study	
HU-2003-033-011	48.15	-51.50	North Atlantic	241	Dinocysts	de Vernal et al., 2013a	this study	
MD-99-2220	48.60	-68.63	North Atlantic	320	Dinocysts	de Vernal et al., 2013a	this study	
HU-90-031-019	49.29	-63.99	North Atlantic	322	Dinocysts	de Simard and de Vernal, 1998; de Vernal et al., 2013a	this study	
HU-91-045-094	50.20	-45.69	North Atlantic	3448	Dinocysts	Solignac et al., 2004; de Vernal and Hillaire-Marcel, 2006; de Vernal et al., 2013a	this study	
HU-91-045-080	53.06	-33.53	North Atlantic	3024	Dinocysts	de Vernal and	this study	

HU-91-045-085	53.98	-38.64	North Atlantic	3603	Dinocysts	Hillaire-Marcel, 2006 de Vernal and Hillaire-Marcel, 2006; Fréchette and de Vernal, 2009	this study
MD-99-2254	56.80	-30.66	North Atlantic	2440	Dinocysts	Solignac et al., 2004	this study
MD-99-2227	58.21	-48.37	North Atlantic	3460	Dinocysts	de Vernal and Hillaire-Marcel, 2006; de Vernal et al., 2013a	this study
HU-90-013-013	58.21	-48.31	North Atlantic	3380	Dinocysts	Solignac et al., 2004; de Vernal and Hillaire- Marcel, 2000; 2006	this study
HU-84-030-021 PC	58.37	-57.51	North Atlantic	2853	Dinocysts	de Vernal and Hillaire-Marcel, 2006	this study
HU-84-030-021 TWC	58.37	-57.51	North Atlantic	2853	Dinocysts	de Vernal and Hillaire-Marcel, 2006; Fréchette and de Vernal, 2009	this study
HU-91-045-072	58.94	-28.74	North Atlantic	2237	Dinocysts	de Vernal and Hillaire-Marcel, 2006	this study
HM03-133-25	60.11	-6.07	North Atlantic	1156	Dinocysts	Solignac et al., 2008	this study
MD-99-2269	66.64	-20.86	North Atlantic	365	Dinocysts	Solignac et al., 2006	this study

GIK23323	67.77	5.92	North Atlantic	1286	Dinocysts	de Vernal et al., 2013a	this study
JM-96-1207	68.10	-29.35	North Atlantic	404	Dinocysts	Solignac et al., 2006	this study
2005-804-006	68.99	-106.57	North Atlantic	118	Dinocysts	Ledu et al., 2010	this study
2004-804-009	74.19	-81.20	North Atlantic	781	Dinocysts	Ledu et al., 2008	this study
2005-804-004	74.27	-91.09	North Atlantic	350	Dinocysts	Ledu et al., 2010	this study
GIK17748-2 (SO80-4)	-32.75	-72.03	Pacific	2545	Forams	Mohtadi and Hebbeln, 2004	this study
GeoB7139-2	-30.20	-71.98	Pacific	3269	Forams	Mohtadi and Hebbeln, 2004	this study
GeoB7112-5	-24.03	-70.82	Pacific	2507	Forams	Mohtadi et al., 2004	this study
ODP 969	33.84	24.88	Mediterranean	2200	Forams	Hayes, unpublished data	this study
TTR17-MS419G	35.45	-4.62	Mediterranean	410	Forams	Margreth et al., 2011	this study
KS310	35.55	-1.57	Mediterranean	1900	Forams	Rohling et al., 1995	this study
MD81-LC21	35.66	26.58	Mediterranean	1522	Forams	De Rijk et al., 1999; Hayes et al., 1999	this study
ODP 973	35.78	18.95	Mediterranean	3695	Forams	Hayes, unpublished data	this study
MD 95-2043	36.14	-2.62	Mediterranean	1841	Forams	Cacho et al., 1999	this study
ODP 977	36.19	-1.57	Mediterranean	1984	Forams	Pérez-Folgado et al., 2003; Pérez-Folgado et al., 2004	this study
ODP 964	36.26	17.74	Mediterranean	3657	Forams	Hayes, unpublished data	this study
MD04-2797CQ	36.95	11.67	Mediterranean	771	Forams	Rouis, Zargouni et al., 2010	this study

ODP 975	38.89	4.50	Mediterranean	2426	Forams	Hayes, unpublished data	this study
ODP 974	40.35	12.13	Mediterranean	3493	Forams	Hayes, unpublished data	this study
M40/4 80 SL	40.95	11.00	Mediterranean	1881	Forams	Hayes, unpublished data	this study
IN68-9	41.78	17.90	Mediterranean	1234	Forams	Jorissen et al., 1993	this study
MD99-2346	42.07	4.15	Mediterranean	2100	Forams	Melki et al., 2009	this study
M40/4 82-2-SL	42.31	3.77	Mediterranean	1070	Forams	Hayes, unpublished data	this study
V30-36	5.35	-27.32	North Atlantic	4245	Forams	Mix, 1986	this study
M35003-4	12.09	-61.24	North Atlantic	1299	Forams	Hüls et al., 2000	this study
KNR140-2_51GGC	32.78	-76.28	North Atlantic	1790	Forams	Rasmussen and Thomson, 2012	this study
MD95-2040	40.58	-9.86	North Atlantic	2465	Forams	deAbreu et al., 2003	this study
CH69-K09	41.76	-47.35	North Atlantic	4100	Forams	Labeyrie et al., 1999	this study
BENGAL 13078#16	48.83	-16.45	North Atlantic	4844	Forams	Smart et al., 2009	this study
CH77-02	52.07	-36.08	North Atlantic	3744	Forams	Marchal et al., 2002	this study
NEAP17K	54.68	-28.35	North Atlantic	2734	Forams	Marchal et al., 2002	this study
NA87-22	55.50	-14.07	North Atlantic	2161	Forams	Duplessy, 1992	this study
MD95-2015	58.76	-25.96	North Atlantic	2630	Forams	Marchal et al., 2002	this study
LINK14	61.80	-6.30	North Atlantic	346	Forams	Rasmussen and Thomson, 2012	this study
MD99-2284	62.37	-0.98	North Atlantic	1500	Forams	Risebrobakken et al., 2011	this study

MD95-2011	66.97	7.63	North Atlantic	1048	Forams	Risebrobakken et al., 2011	this study
23258-2	75.00	13.97	North Atlantic	1768	Forams	Sarnthein et al., 2003	this study
GIK18287-3	5.60	110.60	Pacific	598	Forams	Steinke et al., 2001	this study
MD01-2390	6.63	113.40	Pacific	1545	Forams	Steinke et al., 2008	this study
MD972151	8.73	109.87	Pacific	283	Forams	Huang et al., 2002	this study
MD972142	12.69	119.47	Pacific	1557	Forams	Yu et al., 2006	this study
MD012394	13.78	110.25	Pacific	2097	Forams	Yu et al., 2006	this study
17938-2	19.78	117.53	Pacific	284	Forams	Chen et al., 1999	this study
MD972148	19.80	117.54	Pacific	4872	Forams	Chen et al., 1999	this study
MD97-2146	20.12	117.38	Pacific	172	Forams	Lin et al., 2006	this study
RN96-PC1	24.97	122.93	Pacific	1676	Forams	Ujiié et al., 2003	this study
255	25.20	123.12	Pacific	1575	Forams	Jian et al., 2000	this study
RN88-PC5	25.26	125.15	Pacific	2051	Forams	Ujiié et al., 2003	this study
RN93-PC6	25.68	124.36	Pacific	1849	Forams	Ujiié et al., 2003	this study
RN93-PC4	26.55	125.07	Pacific	1440	Forams	Ujiié et al., 2003	this study
E017	26.57	126.03	Pacific	1826	Forams	Xiang et al., 2007	this study
MD012404	26.65	125.81	Pacific	1397	Forams	Chang et al., 2008	this study
MD98-2193	27.40	126.27	Pacific	1614	Forams	Ujiié et al., 2003	this study
RN93-PC3	27.68	126.42	Pacific	1292	Forams	Ujiié et al., 2003	this study
A7	27.82	126.97	Pacific	1264	Forams	Xiang et al., 2007	this study
RN93-PC1	28.56	127.22	Pacific	1022	Forams	Ujiié et al., 2003	this study
RN92-PC3	28.88	130.67	Pacific	2510	Forams	Ujiié et al., 2003	this study
RN94-PC3	30.92	131.85	Pacific	1536	Forams	Ujiié et al., 2003	this study
B-3GC	31.48	128.52	Pacific	555	Forams	Jian et al., 2000	this study
RN92-PC4	31.67	128.72	Pacific	710	Forams	Ujiié et al., 2003	this study

RC24-16	-5.04	-10.19	South Atlantic	3543	Forams	Mix, 1986	this study	
GIK16773-1	-0.97	-9.44	South Atlantic	4662	Forams	Mix, 1986	this study	
MD97-2125	-22.57	161.73	Pacific	1684	Mg/Ca	Tachikawa et al., 2009	GHOST	
MD01-2378	-13.08	121.79	Indian Ocean	1783	Mg/Ca	Xu et al., 2008	GHOST	
MD98-2165	-9.65	118.34	Indian Ocean	2100	Mg/Ca	Levi et al., 2007	GHOST	
GeoB10038-4	-5.93	103.25	Indian Ocean	1819	Mg/Ca	Mohtadi et al., 2010b	this study	
MD98-2162	-4.69	117.90	Indian Ocean	1855	Mg/Ca	Visser et al., 2003	GHOST	
<i>GeoB10029-4</i>	-1.50	100.13	Indian Ocean	772	Mg/Ca	Mohtadi et al., 2010b	this study	
GeoB4905-4	2.50	9.39	North Atlantic	1328	Mg/Ca	Weldeab et al., 2007b	GHOST	
MD03-2707	2.50	9.40	North Atlantic	1295	Mg/Ca	Weldeab et al., 2007a	GHOST	
PL07-39PC	10.70	-65.94	North Atlantic	790	Mg/Ca	Lea et al., 2003	GHOST	
VM28-122	11.57	-78.42	North Atlantic	3623	Mg/Ca	Schmidt et al., 2004	GHOST	
ODP999	12.75	-78.73	North Atlantic	2827	Mg/Ca	Schmidt et al., 2004	GHOST	
BOFS31K	19.00	-20.17	North Atlantic	3300	Mg/Ca	Elderfield and Ganssen, 2000	GHOST	
MD02-2575	29.02	-87.12	North Atlantic	847	Mg/Ca	Nürnberg et al., 2008	GHOST	
MD01-2334	37.80	-10.17	North Atlantic	3166	Mg/Ca	Skinner and Elderfield, 2005	GHOST	
OCE326-GGC26	43.48	-54.87	North Atlantic	3975	Mg/Ca	Keigwin et al., 2005	GHOST	
MD99-2251	57.43	-27.90	North Atlantic	2620	Mg/Ca	Farmer et al., 2011	this study	
ODP984	61.00	-25.00	North Atlantic	1648	Mg/Ca	Cane et al., 2007	this study	
RAPID-12-1K	62.09	-17.82	North Atlantic	1938	Mg/Ca	Thornalley et al.,	GHOST	

MD97-2120	-45.53	174.93	Pacific	1210	Mg/Ca	2009 Pahnke et al., 2003	GHOST	
MD98-2170	-10.59	125.39	Pacific	832	Mg/Ca	Stott et al., 2004	GHOST	
MD98-2176	-5.00	133.45	Pacific	2382	Mg/Ca	Stott et al., 2004	GHOST	
V19-28	-2.37	-84.65	Pacific	2720	Mg/Ca	Koutavas et al., 2006	GHOST	
V21-30	-1.22	-89.68	Pacific	617	Mg/Ca	Koutavas et al., 2002	GHOST	
ODP1240	0.02	-86.45	Pacific	2921	Mg/Ca	Pena et al., 2008	GHOST	
TR163-22	0.52	-92.40	Pacific	2830	Mg/Ca	Lea et al., 2006	GHOST	
TR163-19	2.26	-90.95	Pacific	2348	Mg/Ca	Lea et al., 2000	GHOST	
MD98-2181	6.30	125.83	Pacific	2114	Mg/Ca	Stott et al., 2004	GHOST	
ODP1242/ME000 5A-43JC	7.86	-83.61	Pacific	1366	Mg/Ca	Benway et al., 2006	GHOST	
MD97-2141	8.80	121.30	Pacific	3633	Mg/Ca	Rosenthal et al., 2003	GHOST	
MD05-2904	19.45	116.25	Pacific	2066	Mg/Ca	Steinke et al., 2011	this study	
ODP1145	19.58	117.63	Pacific	3175	Mg/Ca	Oppo and Sun, 2005	GHOST	
A7	27.82	126.98	Pacific	1264	Mg/Ca	Sun et al., 2005	GHOST	
KY07-04-PC1	31.63	128.95	Pacific	758	Mg/Ca	Kubota et al., 2010	this study	
MD01-2416	51.00	168.00	Pacific	2317	Mg/Ca	Sarnthein et al., 2004	GHOST	
ODP1084B	-25.51	13.28	South Atlantic	1992	Mg/Ca	Farmer et al., 2005	GHOST	
GeoB3129/3911	-4.61	-36.64	South Atlantic	830	Mg/Ca	Weldeab et al., 2006	GHOST	

Table 2: Summary information for individual annual records

Core ID	ANNUAL					5.5-6.5 ka BP						5.75-6.25 ka BP						
	Latitude [°], -S, +N	Longitude [°], -W, +E	WaterDepth [mbsf]	Sensor	No. of samples	Mean SST [°C]	Between-Sample Variability [°C]	Standard Deviation	Mean ΔSST WOA98 [°C]	Mean ΔSST WOA09 [°C]	Mean ΔSST HadISST [°C]	No. of samples	Mean SST [°C]	Between-Sample Variability [°C]	Standard Deviation	Mean ΔSST WOA98 [°C]	Mean ΔSST WOA09 [°C]	Mean ΔSST HadISST [°C]
MD94-103	-45.58	86.53	3560	Alkenone	4	9.8	1.30	0.54	0.56	0.53	0.79	3	9.57	0.60	0.32	0.33	0.30	0.56
MD97-2120	-45.53	174.93	1210	Alkenone	7	10.52	0.59	0.21	-0.47	-0.50	-0.57	3	10.63	0.30	0.16	-0.36	-0.39	-0.45
MD97-2120	-45.53	174.93	1210	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
SO136-GC11	-43.44	167.85	1556	Alkenone	3	15.86	0.38	0.20	1.35	1.34	1.70	1	15.79	-	-	1.28	1.27	1.63
TN057-21PC	-41.13	8.80	4981	Alkenone	6	18.27	2.27	0.72	6.78	7.18	6.87	3	18.34	0.19	0.11	6.85	7.25	6.94
ODP1233	-41.01	-74.45	838	Alkenone	3	14.94	0.14	0.07	1.66	1.92	2.02	2	14.98	0.04	0.03	1.69	1.96	2.06
GeoB3313-1	-41.00	-74.45	852	Alkenone	10	15.75	0.82	0.26	2.46	2.73	2.52	4	15.62	0.26	0.11	2.33	2.60	2.40
MD97-2121	-40.38	177.99	3014	Alkenone	15	17.45	1.52	0.40	0.81	0.85	2.35	8	17.34	1.42	0.50	0.70	0.74	2.24
MD03-2611	-36.73	136.55	2420	Alkenone	3	19.62	0.28	0.14	3.45	3.26	3.73	1	19.62	0.00	-	3.45	3.26	3.73
GIK17748-2	-32.75	-72.03	2545	Alkenone	2	18.70	0.40	0.28	3.78	3.46	3.60	1	18.50	0.00	-	3.58	3.26	3.40
GIK17748-2 (SO80-4)	-32.75	-72.03	2545	Foram	2	13.12	1.22	0.87	-1.79	-2.12	-1.98	1	12.51	0.00	-	-2.41	-2.73	-2.59
GeoB7139-2	-30.20	-71.98	3270	Alkenone	2	18.72	0.15	0.11	3.24	3.19	3.21	1	18.79	0.00	-	3.32	3.26	3.28
GeoB7139-2	-30.20	-71.98	3269	Foram	2	12.52	0.04	0.03	-2.95	-3.01	-2.99	1	12.54	0.00	-	-2.93	-2.99	-2.97
ODP1084B	-25.51	13.28	1992	Mg/Ca	8	-	-	-	-	-	-	3	-	-	-	-	-	-
GeoB7112-5	-24.03	-70.82	2507	Foram	3	12.43	0.58	0.30	-5.65	-5.71	-5.24	2	12.31	0.45	0.32	-5.77	-5.83	-5.36
GeoB1710-3	-23.43	11.69	1045	Alkenone	1	19.50	-	-	2.14	1.77	0.99	1	19.50	0.00	-	2.14	1.77	0.99
GeoB1711-4	-23.31	12.37	1967	Alkenone	1	19.70	-	-	2.98	2.88	1.94	1	19.70	0.00	-	2.97	2.88	1.94
GeoB1712-4	-23.26	12.81	998	Alkenone	2	19.30	0.20	0.14	3.01	2.48	1.54	2	19.30	0.20	0.14	3.01	2.48	1.54
MD97-2125	-22.57	161.73	1684	Mg/Ca	2	-	-	-	-	-	-	0	-	-	-	-	-	-

MD79257	-20.40	36.33	1262	Alkenone	2	27.20	0.20	0.14	1.32	0.98	1.23	1	27.30	0.00	-	1.41	1.08	1.33
GeoB1023-5	-17.16	11.01	1978	Alkenone	3	22.08	0.18	0.10	3.28	3.32	2.80	1	22.15	0.00	-	3.35	3.39	2.87
MD01-2378	-13.08	121.79	1783	Mg/Ca	8	-	-	-	-	-	-	4	-	-	-	-	-	-
ODP1078C	-11.92	13.40	426	Alkenone	3	24.43	0.20	0.12	0.07	-0.81	-0.06	1	24.50	0.00	-	0.13	-0.74	0.01
MD05-2928	-11.29	148.86	2250	Alkenone	3	28.19	0.08	0.04	0.75	0.72	0.97	1	28.16	0.00	-	0.71	0.69	0.94
MD98-2170	-10.59	125.39	832	Mg/Ca	4	-	-	-	-	-	-	1	-	-	-	-	-	-
MD98-2165	-9.65	118.34	2100	Mg/Ca	5	-	-	-	-	-	-	2	-	-	-	-	-	-
SO139-74KL	-6.54	103.83	1690	Alkenone	24	27.48	0.79	0.17	-0.71	-0.73	-0.78	12	27.46	0.77	0.19	-0.73	-0.76	-0.80
GeoB10038-4	-5.94	103.25	1819	Alkenone	2	27.40	0.00	0.00	-0.75	-0.76	-0.90	1	27.40	0.00	-	-0.75	-0.76	-0.90
GeoB10038-4	-5.93	103.25	1819	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB6518-1	-5.59	11.22	962	Alkenone	6	24.50	0.50	0.21	0.12	-1.11	-0.96	2	24.65	0.10	0.07	0.27	-0.96	-0.81
RC24-16	-5.04	-10.19	3543	Foram	2	25.92	0.42	0.30	0.41	0.28	0.25	0	-	-	-	-	-	-
MD98-2176	-5.00	133.45	2382	Mg/Ca	24	-	-	-	-	-	-	11	-	-	-	-	-	-
MD98-2162	-4.69	117.90	1855	Mg/Ca	2	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB 3129-1	-4.61	-36.64	830	Alkenone	3	28.12	0.15	0.08	0.82	0.92	0.82	1	28.15	0.00	-	0.85	0.95	0.85
GeoB3129/ 3911	-4.61	-36.64	830	Mg/Ca	3	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB3910-2	-4.02	-36.35	2362	Alkenone	2	27.05	0.70	0.49	-0.26	-0.15	-0.25	1	27.40	0.00	-	0.09	0.20	0.10
V19-30	-3.38	-83.52	3091	Alkenone	1	22.49	-	-	0.56	0.37	-0.33	1	22.49	0.00	-	0.56	0.37	-0.33
V19-28	-2.51	-84.65	2720	Alkenone	1	23.72	-	-	1.08	0.87	0.41	1	23.72	0.00	-	1.08	0.87	0.41
V19-28	-2.37	-84.65	2720	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB10029-4	-1.50	100.13	772	Mg/Ca	2	-	-	-	-	-	-	2	-	-	-	-	-	-
V21-30	-1.22	-89.68	617	Alkenone	3	24.70	0.41	0.20	1.91	1.29	0.96	1	24.90	0.00	-	2.10	1.49	1.16
V21-30	-1.22	-89.68	617	Mg/Ca	5	-	-	-	-	-	-	1	-	-	-	-	-	-
GIK16773-1	-0.97	-9.44	4662	Foram	2	25.81	0.01	0.01	0.20	-0.07	0.14	1	25.81	0.00	-	0.19	-0.08	0.14
V19-27	-0.47	-82.67	1373	Alkenone	1	25.21	-	-	1.21	0.69	0.51	1	25.21	0.00	-	1.21	0.69	0.51
ODP1240	0.02	-86.45	2921	Mg/Ca	8	-	-	-	-	-	-	4	-	-	-	-	-	-
TR163-22	0.52	-92.40	2830	Mg/Ca	3	-	-	-	-	-	-	2	-	-	-	-	-	-
ME0005A- 24JC	1.50	-86.49	2941	Alkenone	3	24.27	0.64	0.35	-1.34	-1.53	-1.44	2	24.07	0.08	0.06	-1.54	-1.73	-1.64
TR163-19	2.26	-90.95	2348	Mg/Ca	1	-	-	-	-	-	-	0	-	-	-	-	-	-
GeoB4905-4	2.50	9.39	1328	Alkenone	6	25.07	0.35	0.13	-2.49	-2.77	-2.46	3	25.11	0.16	0.12	-2.45	-2.73	-2.43

GeoB4905-4	2.50	9.39	1328	Mg/Ca	9	-	-	-	-	-	6	-	-	-	-	-	-	-
MD03-2707	2.50	9.40	1295	Mg/Ca	24	-	-	-	-	-	12	-	-	-	-	-	-	-
MD85674	3.18	50.43	4875	Alkenone	2	27.05	0.50	0.35	-0.07	0.02	0.18	0	-	-	-	-	-	-
KNR176-JPC32	4.85	-77.96	2200	Alkenone	4	26.04	0.24	0.16	-0.33	-0.67	-0.98	2	26.04	0.09	0.06	-0.34	-0.68	-0.98
V30-36	5.35	-27.32	4245	Foram	1	27.38	-	-	-0.09	-0.03	0.28	1	27.38	0.00	-	-0.09	-0.02	0.29
GIK18287-3	5.60	110.60	598	Foram	3	27.72	1.28	0.67	-0.55	-0.66	-0.41	1	28.24	0.00	-	-0.03	-0.14	0.11
18287-3	5.65	110.65	598	Alkenone	3	28.06	0.16	0.08	-0.21	-0.32	-0.07	1	28.15	0.00	-	-0.12	-0.23	0.02
GIK18287-3	5.98	110.65	598	Alkenone	3	28.07	0.16	0.08	-0.18	-0.31	-0.06	1	28.15	0.00	-	-0.10	-0.23	0.02
17964	6.16	112.21	1556	Alkenone	2	27.70	0.03	0.02	-0.66	-0.72	-0.49	0	-	-	-	-	-	-
MD98-2181	6.30	125.83	2114	Mg/Ca	22	-	-	-	-	-	-	12	-	-	-	-	-	-
MD01-2390	6.63	113.40	1545	Foram	2	28.55	0.01	0.01	0.14	0.09	0.28	1	28.54	0.00	-	0.13	0.08	0.28
MD01-2390	6.64	113.41	1545	Mg/Ca	3	-	-	-	-	-	-	1	-	-	-	-	-	-
ODP1242/ME 0005A-43JC	7.86	-83.61	1366	Mg/Ca	9	-	-	-	-	-	-	4	-	-	-	-	-	-
MD02-2529	8.21	-84.12	1619	Alkenone	3	27.40	0.79	0.43	-0.81	-1.09	-0.65	2	27.55	0.68	0.48	-0.66	-0.94	-0.50
MD97-2151	8.73	109.87	1598	Alkenone	10	27.42	1.57	0.40	-0.52	-0.56	-0.32	5	27.32	1.10	0.45	-0.62	-0.66	-0.43
MD972151	8.73	109.87	283	Foram	3	27.70	0.69	0.39	-0.24	-0.28	-0.04	1	27.94	0.00	-	0.00	-0.04	0.20
MD97-2141	8.80	121.30	3633	Mg/Ca	15	-	-	-	-	-	-	7	-	-	-	-	-	-
18252-3	9.23	109.38	1273	Alkenone	3	27.21	0.32	0.16	-0.57	-0.63	-0.39	1	27.25	0.00	-	-0.53	-0.59	-0.35
MD01-2392	9.85	110.21	1966	Alkenone	1	27.45	-	-	-0.39	-0.55	-0.26	1	27.45	0.00	-	-0.39	-0.55	-0.26
MD77194	10.47	75.23	1222	Alkenone	2	27.15	0.10	0.07	-1.18	-1.45	-1.23	1	27.10	0.00	-	-1.23	-1.50	-1.28
PL07-39PC	10.70	-65.94	790	Mg/Ca	4	-	-	-	-	-	-	2	-	-	-	-	-	-
ODP 1002C	10.71	-65.17	893	Alkenone	1	25.80	-	-	-0.82	-1.90	-1.12	1	25.80	0.00	-	-0.82	-1.90	-1.12
TY93-905	11.07	51.95	1567	Alkenone	7	25.23	0.45	0.18	-0.82	-0.92	-1.75	4	25.17	0.33	0.16	-0.88	-0.99	-1.82
VM28-122	11.57	-78.42	3623	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
M35003-4	12.08	-61.25	1299	Alkenone	4	27.85	0.50	0.21	0.43	0.36	0.29	2	27.95	0.30	0.21	0.53	0.46	0.39
M35003-4	12.09	-61.24	1299	Foram	3	27.64	0.05	0.03	0.22	0.15	0.08	2	27.62	0.02	0.01	0.20	0.13	0.06
MD972142	12.69	119.47	1557	Foram	4	27.92	0.78	0.33	-0.57	-0.48	-0.37	3	27.89	0.78	0.39	-0.60	-0.51	-0.40
ODP999	12.75	-78.73	2827	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
MD012394	13.78	110.25	2097	Foram	5	26.95	0.87	0.39	-0.41	-0.66	-0.11	2	27.09	0.43	0.30	-0.26	-0.52	0.03
74KL	14.32	57.35	3212	Alkenone	2	27.23	0.03	0.02	0.60	0.59	0.74	1	27.21	0.00	-	0.58	0.57	0.72

SCS90-36	18.00	111.49	2050	Alkenone	2	24.91	2.06	1.46	-1.87	-2.00	-1.74	1	25.94	0.00	-	-0.84	-0.97	-0.71
BOFS 31K	19.00	-20.17	3300	Alkenone	1	21.30	-	-	-0.95	-1.07	-1.48	0	-	-	-	-	-	-
BOFS31K	19.00	-20.17	3300	Mg/Ca	1	-	-	-	-	-	-	0	-	-	-	-	-	-
MD05-2904	19.45	116.25	2066	Mg/Ca	4	-	-	-	-	-	-	2	-	-	-	-	-	-
ODP1145	19.58	117.63	3175	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
17938-2	19.78	117.53	284	Foram	1	25.54	-	-	-0.99	-1.25	-0.91	0	-	-	-	-	-	-
MD972148	19.80	117.54	4872	Foram	3	25.59	0.63	0.45	-0.93	-1.20	-0.86	1	25.25	0.00	-	-1.28	-1.53	-1.20
SO93-126KL	19.97	90.03	1253	Alkenone	2	27.80	1.20	0.85	-0.02	0.06	0.01	0	-	-	-	-	-	-
17940-2	20.12	117.38	1727	Alkenone	8	26.60	0.39	0.12	0.23	0.18	0.57	8	26.60	0.39	0.12	0.22	0.19	0.58
MD97-2146	20.12	117.38	172	Foram	21	26.32	1.96	0.45	-0.05	-0.10	0.29	10	26.25	1.82	0.52	-0.12	-0.17	0.22
GeoB7926-2	20.22	-18.45	2500	Alkenone	2	21.20	0.60	0.42	0.78	0.61	-0.58	1	20.90	0.00	-	0.48	0.31	-0.88
ODP658C	20.75	-18.58	2262	Alkenone	8	21.18	0.70	0.28	0.89	0.59	-0.60	4	21.35	0.40	0.19	1.06	0.76	-0.43
PC17	21.36	-158.19	503	Alkenone	3	25.53	0.10	0.06	0.33	0.05	0.19	1	25.50	0.00	-	0.30	0.02	0.16
LAPAZ21P	22.99	-109.47	624	Alkenone	1	24.70	-	-	0.39	0.03	0.63	1	24.70	0.00	-	0.39	0.03	0.63
SO90-93KL	23.58	64.22	1802	Alkenone	3	27.55	0.30	0.16	0.97	0.82	0.96	2	27.49	0.25	0.18	0.91	0.75	0.90
RN96-PC1	24.97	122.93	1676	Foram	4	25.85	1.41	0.61	0.18	-0.45	1.39	1	26.59	0.00	-	0.92	0.28	2.12
255	25.20	123.12	1575	Foram	5	26.75	1.34	0.50	1.28	1.51	2.66	3	27.06	0.60	0.35	1.59	1.83	2.97
RN88-PC5	25.26	125.15	2051	Foram	2	25.64	0.23	0.16	0.28	0.32	0.73	2	25.64	0.23	0.16	0.27	0.32	0.74
RN93-PC6	25.68	124.36	1849	Foram	2	25.47	0.07	0.05	0.45	0.23	0.84	0	-	-	-	-	-	-
RN93-PC4	26.55	125.07	1440	Foram	2	25.81	0.28	0.20	1.35	1.13	1.71	1	25.95	0.00	-	1.50	1.27	1.85
E017	26.57	126.03	1826	Foram	3	26.36	0.73	0.42	1.67	1.45	2.00	1	26.61	0.00	-	1.92	1.70	2.25
MD012404	26.65	125.81	1397	Foram	9	25.90	1.42	0.46	1.33	1.22	1.80	4	26.01	1.42	0.64	1.43	1.33	1.91
MD98-2193	27.40	126.27	1614	Foram	1	25.87	-	-	1.72	1.61	2.36	0	-	-	-	-	-	-
RN93-PC3	27.68	126.42	1292	Foram	1	25.84	-	-	1.87	1.58	2.33	1	25.84	0.00	-	1.86	1.58	2.33
GeoB5844-2	27.71	34.68	963	Alkenone	5	26.26	0.60	0.25	1.00	0.99	1.77	3	26.30	0.30	0.17	1.04	1.03	1.81
A7	27.82	126.97	1264	Foram	7	26.24	0.84	0.35	2.18	1.98	2.73	4	26.43	0.84	0.36	2.36	2.17	2.92
A7	27.82	126.98	1264	Mg/Ca	7	-	-	-	-	-	-	4	-	-	-	-	-	-
RN93-PC1	28.56	127.22	1022	Foram	1	25.14	-	-	1.53	1.21	1.96	1	25.14	0.00	-	1.54	1.21	1.95
RN92-PC3	28.88	130.67	2510	Foram	2	24.03	1.14	0.80	-0.17	-0.37	0.02	0	-	-	-	-	-	-
MD02-2575	29.02	-87.12	847	Mg/Ca	5	-	-	-	-	-	-	2	-	-	-	-	-	-
GeoB6007	30.85	-10.27	583	Alkenone	33	20.08	0.80	0.24	1.67	1.58	0.72	17	20.07	0.60	0.18	1.67	1.57	0.71
RN94-PC3	30.92	131.85	1536	Foram	2	24.74	1.26	0.89	0.98	0.76	1.65	2	24.74	1.26	0.89	0.98	0.76	1.65

ST.19	31.10	138.67	3336	Alkenone	1	22.21	-	-	-0.55	-0.57	-0.36	0	-	-	-	-	-	-
B-3GC	31.48	128.52	555	Foram	6	23.93	0.73	0.26	1.95	1.72	2.76	3	23.85	0.49	0.25	1.86	1.64	2.69
KY07-04-PC1	31.63	128.95	758	Mg/Ca	12	-	-	-	-	-	-	7	-	-	-	-	-	-
RN92-PC4	31.67	128.72	710	Foram	3	23.46	0.97	0.54	1.46	1.25	2.29	1	23.75	0.00	-	1.75	1.54	2.59
ODP1012B	32.28	-118.38	1772	Alkenone	1	16.10	-	-	-0.13	-0.33	-0.12	1	16.10	0.00	-	-0.13	-0.33	-0.12
ST.14	32.67	138.46	3252	Alkenone	1	22.54	-	-	0.33	0.14	0.40	1	22.54	0.00	-	0.33	0.14	0.40
KNR140-2_51GGC	32.78	-76.28	1790	Foram	3	27.16	0.57	0.29	2.59	2.41	2.25	1	27.43	0.00	-	2.86	2.68	2.52
ODP969E	33.84	24.88	2201	Alkenone	3	20.03	2.60	1.45	-0.25	-0.40	-0.40	2	20.40	2.60	1.84	0.12	-0.03	-0.03
ODP 969	33.84	24.88	2200	Foram	2	20.46	0.21	0.15	0.18	0.03	0.03	1	20.57	0.00	-	0.28	0.14	0.14
ODP967D	34.07	32.73	2551	Alkenone	3	20.61	1.64	0.92	-0.89	-0.32	-0.97	1	20.12	0.00	-	-1.38	-0.81	-1.46
ODP1017E	34.54	-121.11	955	Alkenone	2	15.12	0.65	0.46	0.88	0.67	0.24	1	15.44	0.00	-	1.21	0.99	0.56
SSDP-102	34.95	128.88	40	Alkenone	16	21.64	1.10	0.38	2.85	2.49	2.79	10	21.76	0.80	0.29	2.96	2.61	2.91
TTR17-MS419G	35.45	-4.62	410	Foram	1	13.77	-	-	-4.05	-4.43	-4.39	1	13.77	0.00	-	-4.05	-4.44	-4.39
KS310	35.55	-1.57	1900	Foram	1	18.29	-	-	0.00	-0.40	-0.16	0	-	-	-	-	-	-
MD81-LC21	35.66	26.58	1522	Foram	5	19.91	0.39	0.15	0.08	-0.01	-0.24	3	19.82	0.10	0.05	0.00	-0.09	-0.32
ODP 973	35.78	18.95	3695	Foram	2	20.06	1.55	1.10	0.05	-0.21	-0.16	1	19.28	0.00	-	-0.73	-0.99	-0.93
ODP977	36.03	-1.96	1984	Alkenone	1	18.72	-	-	0.41	-0.07	0.21	1	18.72	0.00	-	0.41	-0.07	0.21
MD95-2043	36.14	-2.62	1841	Alkenone	9	19.03	1.34	0.50	0.84	0.24	0.78	4	19.25	0.56	0.32	1.06	0.46	1.00
MD 95-2043	36.14	-2.62	1841	Foram	4	18.21	0.17	0.08	0.02	-0.58	-0.04	2	18.16	0.00	0.00	-0.03	-0.63	-0.09
MD95-2043	36.14	-2.62	1841	Dinocyst	5	17.08	2.36	0.86	-1.11	-1.72	-1.18	2	16.54	0.84	0.59	-1.65	-2.25	-1.71
ODP 977	36.19	-1.57	1984	Foram	2	17.60	2.04	1.44	-0.76	-1.19	-0.91	1	18.62	0.00	-	0.26	-0.17	0.11
ODP Leg 161 Site 976 Hole C	36.21	-4.31	1108	Dinocyst	2	17.82	0.00	0.00	0.00	-0.67	-0.34	1	17.82	0.00	-	0.00	-0.67	-0.34
ODP 964	36.26	17.74	3657	Foram	1	19.87	-	-	0.00	-0.11	-0.03	1	19.87	0.00	-	0.00	-0.12	-0.03
M39-008	36.38	-7.08	576	Alkenone	2	20.62	0.29	0.21	2.32	2.13	1.95	1	20.48	0.00	-	2.18	1.99	1.81
GeoB5901-2	36.38	-7.07	574	Alkenone	29	19.86	0.74	0.17	1.55	1.37	1.19	14	19.98	0.47	0.13	1.67	1.50	1.31
RL11	36.75	17.72	3376	Alkenone	2	23.00	1.20	0.85	3.30	3.02	3.10	1	23.60	0.00	-	3.90	3.62	3.70
CH07-98-GGC19	36.87	-74.57	1049	Alkenone	13	17.75	0.59	0.16	-0.40	-1.47	-0.62	6	17.76	0.32	0.11	-0.39	-1.46	-0.61

MD04-2747	36.95	11.67	770	Dinocyst	2	18.56	0.00	0.00	-0.19	-0.59	-0.86	1	18.56	0.00	-	-0.19	-0.59	-0.86
CQ																		
MD04-2797CQ	36.95	11.67	771	Foram	2	17.73	1.28	0.90	-1.01	-1.42	-1.69	1	18.37	0.00	-	-0.38	-0.77	-1.05
M40-4-SL78/78MUC8	37.04	13.19	470	Alkenone	2	18.90	0.60	0.42	-0.23	0.12	-0.36	2	18.90	0.60	0.42	-0.23	0.12	-0.36
SU81-18	37.77	-10.18	3135	Alkenone	2	18.25	0.70	0.49	0.59	0.33	0.44	0	-	-	-	-	-	-
MD95-2042	37.80	-10.17	3146	Alkenone	3	18.60	0.20	0.10	0.95	0.68	0.79	1	18.50	0.00	-	0.85	0.58	0.69
MD01-2334	37.80	-10.17	3166	Mg/Ca	2	-	-	-	-	-	-	2	-	-	-	-	-	-
MD01-2443	37.88	-10.18	2925	Alkenone	6	18.02	0.56	0.19	0.42	0.10	0.21	3	17.92	0.26	0.13	0.32	0.00	0.10
BS79-33	38.26	14.03	1282	Alkenone	1	20.12	-	-	1.12	0.73	0.92	1	20.12	0.00	-	1.12	0.73	0.92
BS79-38	38.41	13.58	1489	Alkenone	3	16.07	1.42	0.71	-2.93	-3.32	-3.08	2	15.71	0.65	0.46	-3.30	-3.69	-3.44
D13882	38.63	-9.45	88	Alkenone	8	18.38	0.76	0.23	-	1.01	1.09	4	18.32	0.16	0.07	-	0.95	1.03
ODP 975	38.89	4.50	2426	Foram	2	18.38	0.46	0.32	-0.60	-0.92	-0.61	1	18.60	0.00	-	-0.37	-0.69	-0.38
ODP 974	40.35	12.13	3493	Foram	2	15.60	0.00	0.00	-2.99	-3.39	-3.16	2	15.60	0.00	0.00	-2.99	-3.39	-3.16
MD95-2040	40.58	-9.86	2465	Foram	4	15.38	1.80	0.78	-0.85	-0.99	-1.09	2	15.68	1.00	0.70	-0.55	-0.69	-0.79
MD01-2430	40.80	27.73	580	Dinocyst	2	9.49	0.15	0.10	-	-9.76	-7.21	0	-	-	-	-	-	-
M44-KL71	40.84	27.76	566	Alkenone	5	18.32	1.10	0.54	-	-0.93	1.62	3	18.27	1.10	0.57	-	-0.99	1.57
AD91-17	40.87	18.64	844	Alkenone	3	16.63	0.10	0.06	-1.02	-2.62	-2.07	1	16.60	0.00	-	-1.06	-2.65	-2.10
M40/4 80 SL	40.95	11.00	1881	Foram	2	15.73	0.05	0.04	-2.34	-2.98	-2.80	1	15.71	0.00	-	-2.36	-3.00	-2.83
ODP1019C	41.68	-124.93	980	Alkenone	9	10.54	1.00	0.35	-1.89	-2.00	-2.16	3	10.77	0.10	0.06	-1.66	-1.77	-1.93
CH69-K09	41.76	-47.35	4100	Foram	3	12.57	1.80	0.99	-2.99	-3.67	-3.53	2	12.81	1.80	1.28	-2.76	-3.43	-3.29
IN68-9	41.78	17.90	1234	Foram	2	18.19	0.19	0.13	0.51	-0.07	-0.24	2	18.19	0.19	0.13	0.51	-0.07	-0.23
MD99-2346	42.07	4.15	2100	Foram	4	15.18	0.32	0.15	-1.32	-1.77	-1.91	2	15.19	0.32	0.23	-1.31	-1.76	-1.90
M40/4 82-2-SL	42.31	3.77	1070	Foram	10	15.26	1.18	0.34	-0.99	-1.65	-1.89	5	15.35	1.18	0.44	-0.90	-1.56	-1.79
W8709A-8TC	42.54	-127.68	3111	Alkenone	1	11.40	-	-	0.94	-1.82	-1.82	0	-	-	-	-	-	-
OCE326-GGC26	43.48	-54.87	3975	Alkenone	7	11.91	0.72	0.25	1.15	1.10	0.59	3	12.00	0.18	0.10	1.24	1.20	0.69
OCE326-GGC26	43.48	-54.87	3975	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
OCE326-	43.88	-62.80	250	Alkenone	15	13.01	2.09	0.64	5.30	4.89	3.79	8	12.92	2.01	0.84	5.21	4.80	3.70

GGC30																						
HU-90-031-044	44.49	-55.19	1381	Dinocyst	1	8.10	-	-	-0.28	-0.46	-0.78	1	8.10	0.00	-	-0.28	-0.46	-0.78				
MD01-2412	44.53	145.04	1225	Alkenone	14	11.94	1.53	0.50	6.03	5.06	5.36	7	11.79	1.33	0.49	5.88	4.91	5.21				
MD-95-2033	44.66	-55.62	1412	Dinocyst	4	9.20	0.85	0.40	1.13	0.64	0.32	2	8.87	0.07	0.05	0.80	0.31	-0.01				
MR00-K03-PC01	46.19	152.32	2793	Alkenone	4	7.75	1.00	0.64	3.41	3.35	3.15	1	7.30	0.00	-	2.96	2.90	2.70				
HU-2003-033-011	48.15	-51.50	241	Dinocyst	5	0.05	1.43	0.69	-3.53	-3.62	-4.57	3	-0.02	1.43	0.74	-3.60	-3.68	-4.64				
GGC15	48.17	151.34	1980	Alkenone	1	9.50	-	-	5.73	5.61	5.18	0	-	-	-	-	-	-	-			
MD-99-2220	48.60	-68.63	320	Dinocyst	6	4.21	2.64	1.17	-	-1.21	-	2	4.72	2.12	1.50	-	-0.70	-				
BENGAL 13078#16	48.83	-16.45	4844	Foram	2	16.88	2.48	1.75	3.17	3.01	2.94	1	18.12	0.00	-	4.41	4.25	4.17				
JT96-09	48.90	-126.88	920	Alkenone	2	10.15	0.70	0.49	-0.72	-1.10	-1.09	0	-	-	-	-	-	-	-			
HU-90-031-019	49.29	-63.99	322	Dinocyst	4	3.39	0.49	0.21	-1.54	-1.40	-1.99	2	3.35	0.49	0.35	-1.58	-1.44	-2.04				
PC4	49.49	146.13	664	Alkenone	3	7.91	1.19	0.62	4.70	3.79	-	1	7.71	0.00	-	4.50	3.59	-				
HU-91-045-094	50.20	-45.69	3448	Dinocyst	2	6.23	1.52	1.08	-1.70	-1.71	-1.45	1	7.00	0.00	-	-0.94	-0.94	-0.69				
PC2	50.40	148.32	1258	Alkenone	2	7.71	0.85	0.60	3.99	3.53	3.11	2	7.71	0.85	0.60	4.00	3.53	3.11				
MD01-2416	51.00	168.00	2317	Mg/Ca	12	-	-	-	-	-	-	4	-	-	-	-	-	-	-			
CH77-02	52.07	-36.08	3744	Foram	8	7.97	1.77	0.60	-1.34	-0.89	-1.20	5	7.70	0.34	0.14	-1.61	-1.16	-1.47				
HU-91-045-080	53.06	-33.53	3024	Dinocyst	1	12.13	-	-	2.95	3.25	3.10	1	12.13	0.00	-	2.95	3.25	3.10				
HU-91-045-085	53.98	-38.64	3603	Dinocyst	5	10.49	3.29	1.49	2.93	2.52	2.38	3	9.52	1.88	0.97	1.96	1.56	1.42				
NEAP17K	54.68	-28.35	2734	Foram	9	10.55	2.14	0.72	0.64	0.63	0.73	4	10.81	1.96	0.83	0.90	0.89	0.99				
NA87-22	55.50	-14.07	2161	Foram	6	11.65	1.44	0.47	0.20	0.17	0.17	2	11.71	0.17	0.12	0.25	0.23	0.22				
MD-99-2254	56.80	-30.66	2440	Dinocyst	7	7.01	6.16	2.05	-1.62	-1.78	-1.84	4	5.29	1.00	0.61	-3.34	-3.50	-3.56				
MD99-2251	57.43	-27.90	2620	Mg/Ca	17	-	-	-	-	-	-	7	-	-	-	-	-	-				
IOW225517	57.67	7.09	293	Alkenone	11	13.76	1.00	0.35	4.69	4.20	3.87	5	13.76	1.00	0.36	4.68	4.20	3.87				
IOW225514	57.84	8.70	420	Alkenone	16	13.28	1.00	0.26	4.28	3.75	3.46	8	13.21	0.90	0.30	4.22	3.69	3.39				

MD-99-2227	58.21	-48.37	3460	Dinocyst	4	5.06	4.13	1.81	0.35	0.69	0.43	2	5.70	2.80	1.98	0.98	1.33	1.07
HU-90-013-013	58.21	-48.31	3380	Dinocyst	5	4.86	1.50	0.59	0.14	0.49	0.23	3	5.14	1.07	0.54	0.42	0.77	0.51
HU-84-030-021 TWC	58.37	-57.51	2853	Dinocyst	7	4.78	2.28	1.09	1.36	1.46	1.89	3	4.44	2.40	1.20	1.02	1.12	1.55
HU-84-030-021 PC	58.37	-57.51	2853	Dinocyst	8	3.91	4.36	1.34	0.49	0.59	1.02	3	4.73	3.41	1.71	1.31	1.41	1.84
MD95-2015	58.76	-25.96	2630	Alkenone	11	11.63	1.47	0.43	2.38	2.06	2.10	6	11.62	0.59	0.27	2.37	2.05	2.09
MD95-2015	58.76	-25.96	2630	Foram	3	9.50	0.33	0.16	0.25	-0.07	-0.03	1	9.33	0.00	-	0.08	-0.24	-0.21
HU-91-045-072	58.94	-28.74	2237	Dinocyst	11	6.10	1.84	0.55	-2.50	-2.78	-2.81	5	6.07	0.48	0.24	-2.53	-2.81	-2.84
HM03-133-25	60.11	-6.07	1156	Dinocyst	9	6.87	5.00	1.95	-2.87	-2.70	-2.71	4	6.81	4.49	2.32	-2.93	-2.76	-2.77
ODP984	61.00	-25.00	1648	Mg/Ca	11	-	-	-	-	-	-	6	-	-	-	-	-	-
LINK14	61.80	-6.30	346	Foram	3	7.72	0.55	0.30	-0.77	-1.25	-1.21	1	7.38	0.00	-	-1.12	-1.58	-1.55
RAPID-12-1K	62.09	-17.82	1938	Mg/Ca	5	-	-	-	-	-	-	3	-	-	-	-	-	-
MD99-2284	62.37	-0.98	1500	Foram	8	7.54	2.16	0.71	-1.10	-1.28	-1.42	4	7.23	1.98	0.90	-1.40	-1.59	-1.73
MD-99-2269	66.64	-20.86	365	Dinocyst	20	3.61	2.21	0.49	-0.79	-1.29	-0.33	10	3.64	0.96	0.35	-0.76	-1.26	-0.29
MD95-2011	66.97	7.63	1048	Alkenone	8	12.43	1.10	0.42	4.20	3.91	4.06	4	12.64	0.62	0.28	4.41	4.12	4.27
MD95-2011	66.97	7.63	1048	Foram	10	7.68	0.79	0.27	-0.55	-0.84	-0.69	6	7.74	0.79	0.31	-0.49	-0.78	-0.63
JR51-GC35	67.00	-17.96	420	Alkenone	11	6.92	3.97	1.18	3.95	4.06	2.96	5	6.97	3.98	1.58	4.00	4.11	3.02
M23323	67.77	5.92	1286	Dinocyst	10	5.72	2.53	0.70	-2.19	-2.39	-2.06	5	5.95	1.20	0.50	-1.96	-2.16	-1.83
JM-96-1207	68.10	-29.35	404	Dinocyst	9	3.11	1.49	0.56	2.11	3.52	-	5	3.35	1.05	0.44	2.35	3.77	-
2005-804-006	68.99	-106.57	118	Dinocyst	6	-0.44	0.68	0.24	-	-0.10	-	3	-0.33	0.23	0.12	-	0.01	-
PL-96-112	71.27	42.61	286	Dinocyst	9	3.55	3.11	1.32	0.54	0.44	0.42	5	3.59	3.21	1.39	0.58	0.49	0.46
HLY0501-05	72.69	-157.52	415	Dinocyst	6	0.52	2.53	0.89	1.58	1.43	-	2	0.49	0.08	0.06	1.56	1.40	-
2004-804-009	74.19	-81.20	781	Dinocyst	6	0.28	1.95	0.72	-	0.47	-	3	0.11	1.19	0.67	-	0.29	-
2005-804-004	74.27	-91.09	350	Dinocyst	13	-1.00	1.29	0.35	-	0.13	-	7	-1.07	0.47	0.17	-	0.06	-
M23258-2	75.00	13.97	1768	Alkenone	4	7.03	0.52	0.23	3.00	3.09	2.45	2	7.16	0.11	2.10	3.13	3.21	2.57
23258-2	75.00	13.97	1768	Foram	17	2.68	3.21	0.84	-1.35	-1.26	-1.90	9	2.66	2.87	0.85	-1.37	-1.29	-1.93
HU-91-039-008	77.27	-74.32	663	Dinocyst	4	0.76	1.22	0.59	1.35	1.59	-	4	0.76	1.22	0.59	1.35	1.59	-

Table 3: Summery information for individual summer records

Core ID	SUMMER					5.5-6.5 ka BP						5.75-6.25 ka BP						
	Latitude [°], -S, +N	Longitude [°], -W, +E	WaterDepth [mbsf]	Sensor	No. of samples	Mean SST [°C]	Between-Sample Variability [°C]	Standard Deviation	Mean ΔSST WOA98 [°C]	Mean ΔSST WOA09 [°C]	Mean ΔSST HadISST [°C]	No. of samples	Mean SST [°C]	Between-Sample Variability [°C]	Standard Deviation	Mean ΔSST WOA98 [°C]	Mean ΔSST WOA09 [°C]	Mean ΔSST HadISST [°C]
MD94-103	-45.58	86.53	3560	Alkenone	4	-	-	-	-	-	-	3	-	-	-	-	-	
MD97-2120	-45.53	174.93	1210	Alkenone	7	-	-	-	-	-	-	3	-	-	-	-	-	
MD97-2120	-45.53	174.93	1210	Mg/Ca	1	12.23	-	-	-1.26	-1.65	-1.55	1	12.23	0.00	-	-1.26	-1.65	-1.55
SO136-GC11	-43.44	167.85	1556	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
TN057-21PC	-41.13	8.80	4981	Alkenone	6	-	-	-	-	-	-	3	-	-	-	-	-	-
ODP1233	-41.01	-74.45	838	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	-
GeoB3313-1	-41.00	-74.45	852	Alkenone	10	-	-	-	-	-	-	4	-	-	-	-	-	-
MD97-2121	-40.38	177.99	3014	Alkenone	15	-	-	-	-	-	-	8	-	-	-	-	-	-
MD03-2611	-36.73	136.55	2420	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
GIK17748-2	-32.75	-72.03	2545	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
GIK17748-2 (SO80-4)	-32.75	-72.03	2545	Foram	2	14.82	1.29	0.91	-2.44	-2.68	-2.22	1	14.17	0.00	-	-3.08	-3.33	-2.87
GeoB7139-2	-30.20	-71.98	3270	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB7139-2	-30.20	-71.98	3269	Foram	2	14.18	0.06	0.04	-3.97	-3.97	-3.46	1	14.21	0.00	-	-3.95	-3.94	-3.43
ODP1084B	-25.51	13.28	1992	Mg/Ca	8	13.69	1.70	0.74	-3.29	-3.60	-5.47	3	13.43	0.80	0.42	-3.55	-3.86	-5.73
GeoB7112-5	-24.03	-70.82	2507	Foram	3	14.01	0.63	0.35	-7.33	-7.66	-6.65	2	13.90	0.60	0.42	-7.44	-7.77	-6.76
GeoB1710-3	-23.43	11.69	1045	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB1711-4	-23.31	12.37	1967	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB1712-4	-23.26	12.81	998	Alkenone	2	-	-	-	-	-	-	2	-	-	-	-	-	-
MD97-2125	-22.57	161.73	1684	Mg/Ca	2	26.64	0.57	0.40	0.31	0.08	0.19	0	-	-	-	-	-	-
MD79257	-20.40	36.33	1262	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-

GeoB1023-5	-17.16	11.01	1978	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
MD01-2378	-13.08	121.79	1783	Mg/Ca	8	28.09	1.21	0.40	-1.40	-1.18	-1.27	4	28.08	0.83	0.34	-1.41	-1.19	-1.28
ODP1078C	-11.92	13.40	426	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
MD05-2928	-11.29	148.86	2250	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
MD98-2170	-10.59	125.39	832	Mg/Ca	4	29.57	0.56	0.23	-0.15	-0.02	0.48	1	29.54	0.00	-	-0.18	-0.05	0.45
MD98-2165	-9.65	118.34	2100	Mg/Ca	5	26.72	1.17	0.44	-2.34	-2.46	-2.07	2	26.68	0.33	0.23	-2.39	-2.51	-2.11
SO139-74KL	-6.54	103.83	1690	Alkenone	24	-	-	-	-	-	-	12	-	-	-	-	-	-
GeoB10038-4	-5.94	103.25	1819	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB10038-4	-5.93	103.25	1819	Mg/Ca	1	26.02	-	-	-2.30	-2.40	-2.41	1	26.02	0.00	-	-2.30	-2.40	-2.41
GeoB6518-1	-5.59	11.22	962	Alkenone	6	-	-	-	-	-	-	2	-	-	-	-	-	-
RC24-16	-5.04	-10.19	3543	Foram	2	27.19	0.51	0.36	0.41	0.31	0.23	0	-	-	-	-	-	-
MD98-2176	-5.00	133.45	2382	Mg/Ca	24	29.33	1.50	0.43	0.15	0.25	0.67	11	29.53	1.20	0.37	0.35	0.44	0.87
MD98-2162	-4.69	117.90	1855	Mg/Ca	2	29.42	0.31	0.22	0.58	0.51	0.86	1	29.58	0.00	-	0.74	0.67	1.02
GeoB 3129-1	-4.61	-36.64	830	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB3129/3911	-4.61	-36.64	830	Mg/Ca	3	27.18	0.61	0.32	-0.73	-0.49	-0.61	1	27.05	0.00	-	-0.86	-0.62	-0.74
GeoB3910-2	-4.02	-36.35	2362	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
V19-30	-3.38	-83.52	3091	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
V19-28	-2.51	-84.65	2720	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
V19-28	-2.37	-84.65	2720	Mg/Ca	1	20.94	-	-	-3.73	-4.16	-4.93	1	20.94	0.00	-	-3.73	-4.16	-4.93
GeoB10029-4	-1.50	100.13	772	Mg/Ca	2	28.48	0.15	0.11	-	-0.55	-0.19	2	28.48	0.15	0.11	-	-0.55	-0.19
V21-30	-1.22	-89.68	617	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
V21-30	-1.22	-89.68	617	Mg/Ca	5	21.43	0.43	0.18	-3.39	-4.24	-4.54	1	21.55	0.00	-	-3.27	-4.12	-4.42
GIK16773-1	-0.97	-9.44	4662	Foram	2	27.14	0.07	0.05	-0.27	-0.52	-0.30	1	27.18	0.00	-	-0.22	-0.48	-0.26
V19-27	-0.47	-82.67	1373	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
ODP1240	0.02	-86.45	2921	Mg/Ca	8	25.59	0.55	0.20	1.97	1.47	1.59	4	25.61	0.54	0.27	1.98	1.49	1.61
TR163-22	0.52	-92.40	2830	Mg/Ca	3	24.07	0.40	0.21	1.56	1.27	1.05	2	24.15	0.30	0.21	1.64	1.35	1.13
ME0005A-24JC	1.50	-86.49	2941	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	-
TR163-19	2.26	-90.95	2348	Mg/Ca	1	26.20	-	-	0.83	0.64	0.66	0	-	-	-	-	-	-
GeoB4905-4	2.50	9.39	1328	Alkenone	6	-	-	-	-	-	-	3	-	-	-	-	-	-
GeoB4905-4	2.50	9.39	1328	Mg/Ca	9	26.41	1.62	0.59	0.29	-0.19	0.56	6	26.50	1.62	0.67	0.38	-0.10	0.65

MD03-2707	2.50	9.40	1295	Mg/Ca	24	26.87	1.99	0.42	0.75	0.27	1.02	12	26.91	1.42	0.48	0.79	0.31	1.07
MD85674	3.18	50.43	4875	Alkenone	2	-	-	-	-	-	-	0	-	-	-	-	-	-
KNR176-JPC32	4.85	-77.96	2200	Alkenone	4	-	-	-	-	-	-	2	-	-	-	-	-	-
V30-36	5.35	-27.32	4245	Foram	1	27.25	-	-	-0.32	-0.27	0.02	1	27.25	0.00	-	-0.32	-0.27	0.02
GIK18287-3	5.60	110.60	598	Foram	3	28.55	0.28	0.15	-0.30	-0.30	-0.15	1	28.66	0.00	-	-0.19	-0.19	-0.04
18287-3	5.65	110.65	598	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
GIK18287-3	5.98	110.65	598	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
17964	6.16	112.21	1556	Alkenone	2	-	-	-	-	-	-	0	-	-	-	-	-	-
MD98-2181	6.30	125.83	2114	Mg/Ca	22	29.55	1.38	0.35	0.58	0.51	1.01	12	29.51	1.13	0.40	0.54	0.46	0.96
MD01-2390	6.63	113.40	1545	Foram	2	28.92	0.08	0.06	0.10	0.10	0.19	1	28.88	0.00	-	0.05	0.06	0.15
MD01-2390	6.64	113.41	1545	Mg/Ca	3	28.28	1.15	0.65	-0.55	-0.54	-0.45	1	29.03	0.00	-	0.20	0.21	0.30
ODP1242/ME 0005A-43JC	7.86	-83.61	1366	Mg/Ca	9	26.47	1.99	0.58	-1.37	-1.46	-1.27	4	26.53	0.36	0.17	-1.32	-1.40	-1.22
MD02-2529	8.21	-84.12	1619	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	-
MD97-2151	8.73	109.87	1598	Alkenone	10	-	-	-	-	-	-	5	-	-	-	-	-	-
MD972151	8.73	109.87	283	Foram	3	28.69	0.70	0.39	0.05	0.06	0.16	1	28.90	0.00	-	0.26	0.27	0.37
MD97-2141	8.80	121.30	3633	Mg/Ca	15	29.04	1.79	0.53	0.30	0.32	0.35	7	29.19	1.40	0.61	0.45	0.47	0.50
18252-3	9.23	109.38	1273	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
MD01-2392	9.85	110.21	1966	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
MD77194	10.47	75.23	1222	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
PL07-39PC	10.70	-65.94	790	Mg/Ca	4	26.40	1.00	0.42	-0.92	-1.93	-1.12	2	26.10	0.40	0.28	-1.22	-2.23	-1.42
ODP 1002C	10.71	-65.17	893	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
TY93-905	11.07	51.95	1567	Alkenone	7	-	-	-	-	-	-	4	-	-	-	-	-	-
VM28-122	11.57	-78.42	3623	Mg/Ca	1	27.60	-	-	-0.49	-0.49	-0.68	1	27.60	0.00	-	-0.49	-0.49	-0.68
M35003-4	12.08	-61.25	1299	Alkenone	4	-	-	-	-	-	-	2	-	-	-	-	-	-
M35003-4	12.09	-61.24	1299	Foram	3	28.32	0.15	0.07	0.15	0.11	0.05	2	28.32	0.14	0.10	0.14	0.11	0.05
MD972142	12.69	119.47	1557	Foram	4	28.75	0.17	0.08	-0.21	-0.12	0.09	3	28.74	0.18	0.09	-0.22	-0.13	0.07
ODP999	12.75	-78.73	2827	Mg/Ca	1	28.30	-	-	0.23	0.29	0.04	1	28.30	0.00	-	0.23	0.29	0.04
MD012394	13.78	110.25	2097	Foram	5	28.25	0.56	0.20	0.27	-0.03	-0.24	2	28.26	0.04	0.03	0.28	-0.02	-0.23
74KL	14.32	57.35	3212	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
SCS90-36	18.00	111.49	2050	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-

BOFS 31K	19.00	-20.17	3300	Alkenone	1	-	-	-	-	-	-	0	-	-	-	-	-	-
BOFS31K	19.00	-20.17	3300	Mg/Ca	1	17.90	-	-	-6.64	-6.40	-6.72	0	-	-	-	-	-	-
MD05-2904	19.45	116.25	2066	Mg/Ca	4	27.16	0.54	0.24	-1.56	-1.59	-1.60	2	27.05	0.49	0.35	-1.68	-1.71	-1.72
ODP1145	19.58	117.63	3175	Mg/Ca	1	27.80	-	-	-0.95	-1.00	-0.98	1	27.80	0.00	-	-0.95	-1.00	-0.98
17938-2	19.78	117.53	284	Foram	1	28.36	-	-	-0.36	-0.44	-0.42	0	-	-	-	-	-	-
MD972148	19.80	117.54	4872	Foram	3	27.38	0.86	0.48	-1.34	-1.42	-1.40	1	26.83	0.00	-	-1.89	-1.97	-1.95
SO93-126KL	19.97	90.03	1253	Alkenone	2	-	-	-	-	-	-	0	-	-	-	-	-	-
17940-2	20.12	117.38	1727	Alkenone	8	-	-	-	-	-	-	8	-	-	-	-	-	-
MD97-2146	20.12	117.38	172	Foram	21	28.46	0.88	0.22	-0.21	-0.25	-0.26	10	28.47	0.88	0.26	-0.21	-0.24	-0.25
GeoB7926-2	20.22	-18.45	2500	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
ODP658C	20.75	-18.58	2262	Alkenone	8	-	-	-	-	-	-	4	-	-	-	-	-	-
PC17	21.36	-158.19	503	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
LAPAZ21P	22.99	-109.47	624	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
SO90-93KL	23.58	64.22	1802	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	-
RN96-PC1	24.97	122.93	1676	Foram	4	28.14	0.33	0.15	-0.23	-0.48	-0.03	1	28.24	0.00	-	-0.13	-0.38	0.07
255	25.20	123.12	1575	Foram	5	28.67	0.45	0.20	0.31	0.23	0.48	3	28.79	0.34	0.17	0.43	0.34	0.59
RN88-PC5	25.26	125.15	2051	Foram	2	27.85	0.38	0.27	-0.67	-0.74	-0.64	2	27.85	0.38	0.27	-0.68	-0.74	-0.64
RN93-PC6	25.68	124.36	1849	Foram	2	28.04	0.16	0.11	-0.36	-0.48	-0.34	0	-	-	-	-	-	-
RN93-PC4	26.55	125.07	1440	Foram	2	27.97	0.02	0.01	-0.35	-0.48	-0.39	1	27.96	0.00	-	-0.36	-0.49	-0.40
E017	26.57	126.03	1826	Foram	3	28.58	0.33	0.17	0.19	0.07	0.14	1	28.63	0.00	-	0.23	0.12	0.19
MD012404	26.65	125.81	1397	Foram	9	28.22	0.96	0.30	-0.15	-0.23	-0.14	4	28.18	0.96	0.40	-0.18	-0.27	-0.18
MD98-2193	27.40	126.27	1614	Foram	1	28.10	-	-	-0.15	-0.28	-0.18	0	-	-	-	-	-	-
GeoB5546-2	27.54	-13.74	1072	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
RN93-PC3	27.68	126.42	1292	Foram	1	28.08	-	-	-0.10	-0.30	-0.20	1	28.08	0.00	-	-0.10	-0.30	-0.20
GeoB5844-2	27.71	34.68	963	Alkenone	5	-	-	-	-	-	-	3	-	-	-	-	-	-
A7	27.82	126.97	1264	Foram	7	28.41	0.31	0.12	0.23	0.03	0.13	4	28.46	0.20	0.09	0.28	0.08	0.18
A7	27.82	126.98	1264	Mg/Ca	7	25.96	1.49	0.59	-2.22	-2.42	-2.32	4	26.03	1.19	0.54	-2.15	-2.35	-2.25
RN93-PC1	28.56	127.22	1022	Foram	1	27.82	-	-	-0.15	-0.44	-0.34	1	27.82	0.00	-	-0.15	-0.44	-0.34
RN92-PC3	28.88	130.67	2510	Foram	2	26.99	1.35	0.96	-1.09	-1.32	-1.29	0	-	-	-	-	-	-
MD02-2575	29.02	-87.12	847	Mg/Ca	5	26.59	1.59	0.62	-2.21	-2.65	-2.99	2	27.09	0.39	0.28	-1.73	-2.16	-2.49
GeoB6007	30.85	-10.27	583	Alkenone	33	-	-	-	-	-	-	17	-	-	-	-	-	-
RN94-PC3	30.92	131.85	1536	Foram	2	27.80	0.49	0.34	0.00	-0.27	-0.04	2	27.80	0.49	0.35	0.00	-0.27	-0.04

ST.19	31.10	138.67	3336	Alkenone	1	-	-	-	-	-	0	-	-	-	-	-	-	
B-3GC	31.48	128.52	555	Foram	6	27.56	0.40	0.13	0.70	0.20	0.33	3	27.50	0.24	0.13	0.64	0.14	0.27
KY07-04-PC1	31.63	128.95	758	Mg/Ca	12	26.29	2.18	0.67	-0.73	-1.07	-0.94	7	26.17	1.21	0.63	-0.85	-1.20	-1.06
RN92-PC4	31.67	128.72	710	Foram	3	26.63	1.67	0.95	-0.22	-0.73	-0.60	1	27.14	0.00	-	0.28	-0.22	-0.09
ODP1012B	32.28	-118.38	1772	Alkenone	1	-	-	-	-	-	1	-	-	-	-	-	-	
ST.14	32.67	138.46	3252	Alkenone	1	-	-	-	-	-	1	-	-	-	-	-	-	
KNR140-2_51GGC	32.78	-76.28	1790	Foram	3	27.86	0.27	0.14	0.06	-0.11	-0.54	1	27.91	0.00	-	0.11	-0.06	-0.49
ODP969E	33.84	24.88	2201	Alkenone	3	-	-	-	-	-	2	-	-	-	-	-	-	
ODP 969	33.84	24.88	2200	Foram	2	25.07	0.02	0.01	0.31	0.07	-0.16	1	25.08	0.00	-	0.32	0.08	-0.15
ODP967D	34.07	32.73	2551	Alkenone	3	-	-	-	-	-	1	-	-	-	-	-	-	
ODP1017E	34.54	-121.11	955	Alkenone	2	-	-	-	-	-	1	-	-	-	-	-	-	
SSDP-102	34.95	128.88	40	Alkenone	16	-	-	-	-	-	10	-	-	-	-	-	-	
TTR17-MS419G	35.45	-4.62	410	Foram	1	16.57	-	-	-3.92	-4.86	-5.10	1	16.57	0.00	-	-3.91	-4.86	-5.10
KS310	35.55	-1.57	1900	Foram	1	23.72	-	-	1.37	0.68	0.48	0	-	-	-	-	-	
MD81-LC21	35.66	26.58	1522	Foram	5	24.51	0.45	0.17	0.76	0.59	-0.17	3	24.45	0.18	0.09	0.70	0.52	-0.24
ODP 973	35.78	18.95	3695	Foram	2	25.07	1.75	1.24	-0.18	-0.70	-0.98	1	24.19	0.00	-	-1.06	-1.58	-1.86
ODP977	36.03	-1.96	1984	Alkenone	1	-	-	-	-	-	1	-	-	-	-	-	-	
MD95-2043	36.14	-2.62	1841	Alkenone	9	-	-	-	-	-	4	-	-	-	-	-	-	
MD 95-2043	36.14	-2.62	1841	Foram	4	22.51	0.26	0.19	0.62	-1.42	-0.15	2	20.39	1.05	0.74	-1.50	-3.54	-2.27
MD95-2043	36.14	-2.62	1841	Dinocyst	5	21.11	3.23	1.19	-0.78	-2.82	-1.55	2	22.36	0.13	0.09	0.47	-1.57	-0.30
ODP 977	36.19	-1.57	1984	Foram	2	21.98	2.41	1.70	-0.83	-1.95	-1.47	1	23.19	0.00	-	0.38	-0.74	-0.26
ODP Leg 161 Site976 HoleC	36.21	-4.31	1108	Dinocyst	2	20.62	0.00	0.00	0.01	-0.49	-1.05	1	20.62	0.00	-	0.01	-0.49	-1.05
ODP 964	36.26	17.74	3657	Foram	1	24.82	-	-	-0.35	-0.73	-1.02	1	24.82	0.00	-	-0.35	-0.73	-1.02
M39-008	36.38	-7.08	576	Alkenone	2	-	-	-	-	-	1	-	-	-	-	-	-	
GeoB5901-2	36.38	-7.07	574	Alkenone	29	-	-	-	-	-	14	-	-	-	-	-	-	
RL11	36.75	17.72	3376	Alkenone	2	-	-	-	-	-	1	-	-	-	-	-	-	
CH07-98-GGC19	36.87	-74.57	1049	Alkenone	13	-	-	-	-	-	6	-	-	-	-	-	-	
MD04-2747	36.95	11.67	770	Dinocyst	2	23.59	0.05	0.03	-0.12	-0.87	-1.58	1	23.57	0.00	-	-0.14	-0.90	-1.60

CQ																				
MD04-2797CQ	36.95	11.67	771	Foram	2	21.48	2.10	1.48	-2.22	-2.98	-3.69	1	22.53	0.00	-	-1.18	-1.93	-2.64		
M40-4-SL78 /78MUC8	37.04	13.19	470	Alkenone	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-	
SU81-18	37.77	-10.18	3135	Alkenone	2	-	-	-	-	-	-	0	-	-	-	-	-	-	-	
MD95-2042	37.80	-10.17	3146	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	
MD01-2334	37.80	-10.17	3166	Mg/Ca	2	16.22	0.70	0.49	-3.72	-4.21	-4.39	2	16.22	0.70	0.49	-3.73	-4.21	-4.39		
MD01-2443	37.88	-10.18	2925	Alkenone	6	-	-	-	-	-	-	3	-	-	-	-	-	-	-	
BS79-33	38.26	14.03	1282	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	
BS79-38	38.41	13.58	1489	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	-	-	
D13882	38.63	-9.45	88	Alkenone	8	-	-	-	-	-	-	4	-	-	-	-	-	-	-	
ODP 975	38.89	4.50	2426	Foram	2	23.11	0.43	0.30	-1.32	-1.78	-1.62	1	23.32	0.00	-	-1.10	-1.57	-1.41		
ODP 974	40.35	12.13	3493	Foram	2	19.53	0.07	0.05	-4.41	-5.18	-5.21	2	19.53	0.06	0.05	-4.42	-5.19	-5.22		
MD95-2040	40.58	-9.86	2465	Foram	4	17.89	2.01	0.89	-0.69	-0.94	-1.60	2	18.20	1.14	0.81	-0.38	-0.63	-1.29		
MD01-2430	40.80	27.73	580	Dinocyst	2	13.48	0.43	0.30	-	-11.53	-9.50	0	-	-	-	-	-	-	-	
M44-KL71	40.84	27.76	566	Alkenone	5	-	-	-	-	-	-	3	-	-	-	-	-	-	-	
AD91-17	40.87	18.64	844	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	
M40/4 80 SL	40.95	11.00	1881	Foram	2	19.86	0.07	0.05	-3.37	-4.52	-4.50	1	19.82	0.00	-	-3.41	-4.56	-4.54		
ODP1019C	41.68	-124.93	980	Alkenone	9	-	-	-	-	-	-	3	-	-	-	-	-	-	-	
CH69-K09	41.76	-47.35	4100	Foram	3	15.82	2.14	1.17	-4.00	-5.05	-5.58	2	16.09	2.14	1.51	-3.73	-4.78	-5.31		
IN68-9	41.78	17.90	1234	Foram	2	22.90	0.18	0.13	0.18	-1.03	-1.49	2	22.90	0.18	0.13	0.18	-1.03	-1.49		
MD99-2346	42.07	4.15	2100	Foram	4	18.82	0.78	0.32	-2.28	-2.91	-3.34	2	19.01	0.48	0.34	-2.10	-2.72	-3.15		
M40/4 82-2-SL	42.31	3.77	1070	Foram	10	19.00	1.30	0.40	-1.75	-2.65	-3.33	5	19.08	1.30	0.51	-1.68	-2.56	-3.25		
W8709A-8TC	42.54	-127.68	3111	Alkenone	1	-	-	-	-	-	-	0	-	-	-	-	-	-	-	
OCE326-GGC26	43.48	-54.87	3975	Alkenone	7	-	-	-	-	-	-	3	-	-	-	-	-	-	-	
OCE326-GGC26	43.48	-54.87	3975	Mg/Ca	1	13.67	-	-	-3.14	-3.68	-4.76	1	13.67	0.00	-	-3.14	-3.68	-4.76		
OCE326-GGC30	43.88	-62.80	250	Alkenone	15	-	-	-	-	-	-	8	-	-	-	-	-	-	-	

HU-90-031-044	44.49	-55.19	1381	Dinocyst	1	14.84	-	-	-0.04	-0.85	-1.66	1	14.84	0.00	-	-0.04	-0.85	-1.66
MD01-2412	44.53	145.04	1225	Alkenone	14	-	-	-	-	-	-	7	-	-	-	-	-	-
MD-95-2033	44.66	-55.62	1412	Dinocyst	4	14.26	1.75	0.80	-0.40	-1.43	-2.24	2	13.61	0.35	0.25	-1.05	-2.08	-2.89
MR00-K03-PC01	46.19	152.32	2793	Alkenone	4	-	-	-	-	-	-	1	-	-	-	-	-	-
HU-2003-033-011	48.15	-51.50	241	Dinocyst	5	2.11	1.67	0.81	-7.45	-8.09	-9.14	3	2.15	1.62	0.81	-7.41	-8.05	-9.10
GGC15	48.17	151.34	1980	Alkenone	1	-	-	-	-	-	-	0	-	-	-	-	-	-
MD-99-2220	48.60	-68.63	320	Dinocyst	6	7.42	2.67	1.11	-	-6.02	-	2	7.91	1.35	0.96	-	-5.53	-
BENGAL 13078/16	48.83	-16.45	4844	Foram	2	19.90	1.93	1.36	3.31	3.12	2.88	1	20.86	0.00	-	4.28	4.08	3.84
JT96-09	48.90	-126.88	920	Alkenone	2	-	-	-	-	-	-	0	-	-	-	-	-	-
HU-90-031-019	49.29	-63.99	322	Dinocyst	4	7.99	0.60	0.28	-3.82	-4.75	-5.20	2	8.07	0.56	0.40	-3.74	-4.67	-5.12
PC4	49.49	146.13	664	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
HU-91-045-094	50.20	-45.69	3448	Dinocyst	2	9.29	2.20	1.56	-2.25	-2.25	-2.20	1	10.39	0.00	-	-1.15	-1.15	-1.10
PC2	50.40	148.32	1258	Alkenone	2	-	-	-	-	-	-	2	-	-	-	-	-	-
MD01-2416	51.00	168.00	2317	Mg/Ca	12	4.95	2.35	0.70	-4.21	-4.23	-4.62	4	4.84	1.10	0.46	-4.32	-4.34	-4.73
CH77-02	52.07	-36.08	3744	Foram	8	9.98	1.93	0.61	-2.25	-1.65	-2.20	5	9.68	0.31	0.12	-2.56	-1.95	-2.49
HU-91-045-080	53.06	-33.53	3024	Dinocyst	1	15.35	-	-	3.29	3.69	3.46	1	15.35	0.00	-	3.29	3.69	3.46
HU-91-045-085	53.98	-38.64	3603	Dinocyst	5	13.44	3.97	1.75	2.98	2.70	2.27	3	12.31	2.19	1.14	1.85	1.57	1.13
NEAP17K	54.68	-28.35	2734	Foram	9	12.82	2.74	0.96	0.54	0.41	0.33	4	13.14	2.59	1.07	0.86	0.73	0.65
NA87-22	55.50	-14.07	2161	Foram	6	14.03	2.24	0.75	0.21	0.18	0.22	2	14.17	0.25	0.18	0.34	0.32	0.36
MD-99-2254	56.80	-30.66	2440	Dinocyst	7	9.07	7.40	2.56	-1.79	-2.15	-2.18	4	8.20	2.38	1.12	-2.65	-3.02	-3.04
MD99-2251	57.43	-27.90	2620	Mg/Ca	17	10.17	4.17	1.14	-1.04	-1.41	-1.44	7	10.86	2.02	0.73	-0.35	-0.72	-0.75
IOW225517	57.67	7.09	293	Alkenone	11	-	-	-	-	-	-	5	-	-	-	-	-	-
IOW225514	57.84	8.70	420	Alkenone	16	-	-	-	-	-	-	8	-	-	-	-	-	-
MD-99-2227	58.21	-48.37	3460	Dinocyst	4	9.05	3.94	1.66	1.72	2.08	1.77	2	9.88	1.70	1.20	2.56	2.92	2.61

HU-90-013-013	58.21	-48.31	3380	Dinocyst	5	8.00	1.54	0.66	0.67	1.03	0.72	3	8.22	1.06	0.58	0.90	1.26	0.94
HU-84-030-021 TWC	58.37	-57.51	2853	Dinocyst	7	7.67	3.38	1.25	1.47	1.65	1.95	3	6.91	2.66	1.34	0.71	0.89	1.19
HU-84-030-021 PC	58.37	-57.51	2853	Dinocyst	8	6.44	5.11	1.55	0.24	0.42	0.72	3	7.36	3.55	1.77	1.15	1.33	1.63
MD95-2015	58.76	-25.96	2630	Alkenone	11	-	-	-	-	-	-	6	-	-	-	-	-	-
MD95-2015	58.76	-25.96	2630	Foram	3	11.60	0.24	0.13	0.35	-0.08	-0.11	1	11.51	0.00	-	0.27	-0.17	-0.20
HU-91-045-072	58.94	-28.74	2237	Dinocyst	11	9.91	2.30	0.84	-0.73	-1.15	-1.14	5	9.63	1.70	0.84	-1.02	-1.43	-1.42
HM03-133-25	60.11	-6.07	1156	Dinocyst	9	9.36	5.58	2.21	-2.21	-2.12	-2.24	4	9.25	4.67	2.58	-2.31	-2.23	-2.35
ODP984	61.00	-25.00	1648	Mg/Ca	11	8.55	1.80	0.58	-2.38	-2.48	-2.29	6	8.75	0.40	0.45	-2.17	-2.28	-2.09
LINK14	61.80	-6.30	346	Foram	3	9.75	0.34	0.18	-0.76	-0.95	-1.16	1	9.54	0.00	-	-0.96	-1.16	-1.37
RAPID-12-1K	62.09	-17.82	1938	Mg/Ca	5	9.90	2.05	0.79	-1.39	-1.39	-1.34	3	10.35	1.37	0.69	-0.94	-0.94	-0.89
MD99-2284	62.37	-0.98	1500	Foram	8	10.01	2.35	0.77	-1.22	-1.52	-1.45	4	9.68	2.14	0.94	-1.56	-1.85	-1.79
MD-99-2269	66.64	-20.86	365	Dinocyst	20	6.36	2.42	0.63	-0.23	-0.92	0.75	10	6.34	1.10	0.36	-0.25	-0.94	0.74
MD95-2011	66.97	7.63	1048	Alkenone	8	-	-	-	-	-	-	4	-	-	-	-	-	-
MD95-2011	66.97	7.63	1048	Foram	10	10.04	1.16	0.36	-0.98	-1.42	-1.38	6	10.12	1.15	0.39	-0.90	-1.34	-1.30
JR51-GC35	67.00	-17.96	420	Alkenone	11	-	-	-	-	-	-	5	-	-	-	-	-	-
M23323	67.77	5.92	1286	Dinocyst	10	8.49	2.38	0.64	-2.03	-2.24	-2.10	5	8.73	1.10	0.45	-1.79	-2.00	-1.86
JM-96-1207	68.10	-29.35	404	Dinocyst	9	6.70	2.13	0.69	5.55	6.91	-	5	6.91	1.31	0.48	5.76	7.12	-
2005-804-006	68.99	-106.57	118	Dinocyst	6	1.23	0.96	0.40	-	0.97	-	3	1.21	0.77	0.39	-	0.95	-
PL-96-112	71.27	42.61	286	Dinocyst	9	7.02	3.63	1.25	0.28	0.31	0.48	5	7.30	2.89	1.11	0.56	0.59	0.76
HLY0501-05	72.69	-157.52	415	Dinocyst	6	2.34	2.38	0.15	1.94	2.07	2.23	2	2.57	0.36	0.25	2.16	2.29	2.46
2004-804-009	74.19	-81.20	781	Dinocyst	6	2.93	4.25	1.54	-	0.95	-	3	2.34	2.35	1.19	-	0.36	-
2005-804-004	74.27	-91.09	350	Dinocyst	13	0.21	1.92	0.48	-	0.15	-	7	0.03	0.27	0.10	-	-0.03	-
M23258-2	75.00	13.97	1768	Alkenone	4	-	-	-	-	-	-	2	-	-	-	-	-	-
23258-2	75.00	13.97	1768	Foram	17	4.99	3.53	0.89	-0.96	-0.96	-1.79	9	4.97	2.73	0.94	-0.98	-0.97	-1.80
HU-91-039-008	77.27	-74.32	663	Dinocyst	4	2.56	1.15	0.54	1.51	2.10	-	4	2.56	1.15	0.54	1.51	2.10	-

Table 4: Summary information for individual winter records

Core ID	WINTER					5.5-6.5 ka BP						5.75-6.25 ka BP						
	Latitude [$^{\circ}$], -S, +N	Longitude [$^{\circ}$], -W, +E	WaterDepth [mbsf]	Sensor	No. of samples	Mean SST [$^{\circ}$ C]	Between-Sample Variability [$^{\circ}$ C]	Standard Deviation	Mean Δ SST WOA98 [$^{\circ}$ C]	Mean Δ SST WOA09 [$^{\circ}$ C]	Mean Δ SST HadISST [$^{\circ}$ C]	No. of samples	Mean SST [$^{\circ}$ C]	Between-Sample Variability [$^{\circ}$ C]	Standard Deviation	Mean Δ SST WOA98 [$^{\circ}$ C]	Mean Δ SST WOA09 [$^{\circ}$ C]	Mean Δ SST HadISST [$^{\circ}$ C]
MD94-103	-45.58	86.53	3560	Alkenone	4	-	-	-	-	-	-	3	-	-	-	-	-	-
MD97-2120	-45.53	174.93	1210	Alkenone	7	-	-	-	-	-	-	0	-	-	-	-	-	-
MD97-2120	-45.53	174.93	1210	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
SO136-GC11	-43.44	167.85	1556	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
TN057-21PC	-41.13	8.80	4981	Alkenone	6	-	-	-	-	-	-	3	-	-	-	-	-	-
ODP1233	-41.01	-74.45	838	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	-
GeoB3313-1	-41.00	-74.45	852	Alkenone	10	-	-	-	-	-	-	4	-	-	-	-	-	-
MD97-2121	-40.38	177.99	3014	Alkenone	15	-	-	-	-	-	-	8	-	-	-	-	-	-
MD03-2611	-36.73	136.55	2420	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
GIK17748-2	-32.75	-72.03	2545	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
GIK17748-2 (SO80-4)	-32.75	-72.03	2545	Foram	2	11.50	1.18	0.83	-1.72	-2.04	-1.83	1	10.92	0.00	-	-2.31	-2.62	-2.41
GeoB7139-2	-30.20	-71.98	3270	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB7139-2	-30.20	-71.98	3269	Foram	2	10.92	0.03	0.02	-2.71	-2.64	-2.73	1	10.94	0.00	-	-2.69	-2.62	-2.71
ODP1084B	-25.51	13.28	1992	Mg/Ca	8	-	-	-	-	-	-	3	-	-	-	-	-	-
GeoB7112-5	-24.03	-70.82	2507	Foram	3	10.89	0.53	0.27	-4.46	-4.66	-4.27	2	10.78	0.35	0.25	-4.59	-4.78	-4.39
GeoB1710-3	-23.43	11.69	1045	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB1711-4	-23.31	12.37	1967	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB1712-4	-23.26	12.81	998	Alkenone	2	-	-	-	-	-	-	2	-	-	-	-	-	-
MD97-2125	-22.57	161.73	1684	Mg/Ca	2	-	-	-	-	-	-	0	-	-	-	-	-	-
MD79257	-20.40	36.33	1262	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-

GeoB1023-5	-17.16	11.01	1978	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
MD01-2378	-13.08	121.79	1783	Mg/Ca	8	-	-	-	-	-	-	4	-	-	-	-	-	-
ODP1078C	-11.92	13.40	426	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
MD05-2928	-11.29	148.86	2250	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
MD98-2170	-10.59	125.39	832	Mg/Ca	4	-	-	-	-	-	-	1	-	-	-	-	-	-
MD98-2165	-9.65	118.34	2100	Mg/Ca	5	-	-	-	-	-	-	2	-	-	-	-	-	-
SO139-74KL	-6.54	103.83	1690	Alkenone	24	-	-	-	-	-	-	12	-	-	-	-	-	-
GeoB10038-4	-5.94	103.25	1819	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB10038-4	-5.93	103.25	1819	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB6518-1	-5.59	11.22	962	Alkenone	6	-	-	-	-	-	-	2	-	-	-	-	-	-
RC24-16	-5.04	-10.19	3543	Foram	2	24.04	0.09	0.06	0.39	0.06	-0.05	0	-	-	-	-	-	-
MD98-2176	-5.00	133.45	2382	Mg/Ca	24	-	-	-	-	-	-	11	-	-	-	-	-	-
MD98-2162	-4.69	117.90	1855	Mg/Ca	2	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB 3129-1	-4.61	-36.64	830	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB3129/ 3911	-4.61	-36.64	830	Mg/Ca	3	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB3910-2	-4.02	-36.35	2362	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
V19-30	-3.38	-83.52	3091	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
V19-28	-2.51	-84.65	2720	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
V19-28	-2.37	-84.65	2720	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
GeoB10029-4	-1.50	100.13	772	Mg/Ca	2	-	-	-	-	-	-	2	-	-	-	-	-	-
V21-30	-1.22	-89.68	617	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
V21-30	-1.22	-89.68	617	Mg/Ca	5	-	-	-	-	-	-	1	-	-	-	-	-	-
GIK16773-1	-0.97	-9.44	4662	Foram	2	24.03	0.25	0.17	0.85	0.51	0.81	1	23.91	0.00	-	0.73	0.39	0.69
V19-27	-0.47	-82.67	1373	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
ODP1240	0.02	-86.45	2921	Mg/Ca	8	-	-	-	-	-	-	4	-	-	-	-	-	-
TR163-22	0.52	-92.40	2830	Mg/Ca	3	-	-	-	-	-	-	2	-	-	-	-	-	-
ME0005A- 24JC	1.50	-86.49	2941	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	-
TR163-19	2.26	-90.95	2348	Mg/Ca	1	-	-	-	-	-	-	0	-	-	-	-	-	-
GeoB4905-4	2.50	9.39	1328	Alkenone	6	-	-	-	-	-	-	3	-	-	-	-	-	-
GeoB4905-4	2.50	9.39	1328	Mg/Ca	9	-	-	-	-	-	-	6	-	-	-	-	-	-

MD03-2707	2.50	9.40	1295	Mg/Ca	24	-	-	-	-	-	-	12	-	-	-	-	-	-
MD85674	3.18	50.43	4875	Alkenone	2	-	-	-	-	-	-	0	-	-	-	-	-	-
KNR176-JPC32	4.85	-77.96	2200	Alkenone	4	-	-	-	-	-	-	2	-	-	-	-	-	-
V30-36	5.35	-27.32	4245	Foram	1	26.82	-	-	-0.12	-0.10	0.30	1	26.82	0.00	-	-0.12	-0.10	0.30
GIK18287-3	5.60	110.60	598	Foram	3	26.32	1.97	1.06	-0.53	-0.79	-0.36	1	27.07	0.00	-	0.21	-0.04	0.39
18287-3	5.65	110.65	598	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
GIK18287-3	5.98	110.65	598	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
17964	6.16	112.21	1556	Alkenone	2	-	-	-	-	-	-	0	-	-	-	-	-	-
MD98-2181	6.30	125.83	2114	Mg/Ca	22	-	-	-	-	-	-	12	-	-	-	-	-	-
MD01-2390	6.63	113.40	1545	Foram	2	27.32	0.26	0.19	0.42	0.18	0.39	1	27.19	0.00	-	0.30	0.05	0.26
MD01-2390	6.64	113.41	1545	Mg/Ca	3	-	-	-	-	-	-	1	-	-	-	-	-	-
ODP1242/ME 0005A-43JC	7.86	-83.61	1366	Mg/Ca	9	-	-	-	-	-	-	4	-	-	-	-	-	-
MD02-2529	8.21	-84.12	1619	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	-
MD97-2151	8.73	109.87	1598	Alkenone	10	-	-	-	-	-	-	5	-	-	-	-	-	-
MD972151	8.73	109.87	283	Foram	3	26.34	0.66	0.37	-0.13	-0.25	0.29	1	26.57	0.00	-	0.10	-0.02	0.52
MD97-2141	8.80	121.30	3633	Mg/Ca	15	-	-	-	-	-	-	7	-	-	-	-	-	-
18252-3	9.23	109.38	1273	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
MD01-2392	9.85	110.21	1966	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
MD77194	10.47	75.23	1222	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
PL07-39PC	10.70	-65.94	790	Mg/Ca	4	-	-	-	-	-	-	2	-	-	-	-	-	-
ODP 1002C	10.71	-65.17	893	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
TY93-905	11.07	51.95	1567	Alkenone	7	-	-	-	-	-	-	4	-	-	-	-	-	-
VM28-122	11.57	-78.42	3623	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
M35003-4	12.08	-61.25	1299	Alkenone	4	-	-	-	-	-	-	2	-	-	-	-	-	-
M35003-4	12.09	-61.24	1299	Foram	3	26.61	0.22	0.11	0.20	0.13	0.11	2	26.55	0.04	0.04	0.13	0.07	0.05
MD972142	12.69	119.47	1557	Foram	4	26.26	1.31	0.55	-0.96	-0.85	-0.69	3	26.21	1.32	0.67	-1.01	-0.90	-0.74
ODP999	12.75	-78.73	2827	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
MD012394	13.78	110.25	2097	Foram	5	25.05	1.34	0.60	-0.72	-1.06	0.13	2	25.33	0.84	0.59	-0.44	-0.78	0.41
74KL	14.32	57.35	3212	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
SCS90-36	18.00	111.49	2050	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-

BOFS 31K	19.00	-20.17	3300	Alkenone	1	-	-	-	-	-	-	0	-	-	-	-	-	-
BOFS31K	19.00	-20.17	3300	Mg/Ca	1	-	-	-	-	-	-	0	-	-	-	-	-	-
MD05-2904	19.45	116.25	2066	Mg/Ca	4	-	-	-	-	-	-	2	-	-	-	-	-	-
ODP1145	19.58	117.63	3175	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
17938-2	19.78	117.53	284	Foram	1	22.42	-	-	-1.39	-1.73	-1.00	0	-	-	-	-	-	-
MD972148	19.80	117.54	4872	Foram	3	23.59	0.55	0.27	-0.21	-0.56	0.17	1	23.56	0.00	-	-0.24	-0.59	0.14
SO93-126KL	19.97	90.03	1253	Alkenone	2	-	-	-	-	-	-	0	-	-	-	-	-	-
17940-2	20.12	117.38	1727	Alkenone	8	-	-	-	-	-	-	8	-	-	-	-	-	-
MD97-2146	20.12	117.38	172	Foram	21	23.74	2.39	0.65	0.18	0.11	0.98	10	23.66	2.39	0.72	0.10	0.03	0.90
GeoB7926-2	20.22	-18.45	2500	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	-
ODP658C	20.75	-18.58	2262	Alkenone	8	-	-	-	-	-	-	4	-	-	-	-	-	-
PC17	21.36	-158.19	503	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
LAPAZ21P	22.99	-109.47	624	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
SO90-93KL	23.58	64.22	1802	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	-
RN96-PC1	24.97	122.93	1676	Foram	4	23.44	1.19	0.90	0.57	-0.49	2.87	1	24.58	0.00	-	1.71	0.65	4.01
255	25.20	123.12	1575	Foram	5	24.44	1.95	0.75	1.93	2.38	4.46	3	24.91	0.94	0.49	2.40	2.85	4.93
RN88-PC5	25.26	125.15	2051	Foram	2	23.23	0.04	0.03	0.98	1.17	1.81	2	23.23	0.04	0.03	0.98	1.17	1.81
RN93-PC6	25.68	124.36	1849	Foram	2	22.94	0.35	0.25	1.19	0.97	1.99	0	-	-	-	-	-	-
RN93-PC4	26.55	125.07	1440	Foram	2	23.43	0.41	0.29	2.55	2.33	3.33	1	23.64	0.00	-	2.76	2.54	3.54
E017	26.57	126.03	1826	Foram	3	23.97	1.08	0.62	2.70	2.87	3.43	1	24.34	0.00	-	3.07	3.24	3.80
MD012404	26.65	125.81	1397	Foram	9	23.37	1.91	0.57	2.28	2.27	3.27	4	23.59	1.66	0.78	2.50	2.48	3.49
MD98-2193	27.40	126.27	1614	Foram	1	23.54	-	-	3.07	3.01	4.38	0	-	-	-	-	-	-
GeoB5546-2	27.54	-13.74	1072	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
RN93-PC3	27.68	126.42	1292	Foram	1	23.31	-	-	3.08	2.78	4.15	1	23.31	0.00	-	3.08	2.78	4.15
GeoB5844-2	27.71	34.68	963	Alkenone	5	-	-	-	-	-	-	3	-	-	-	-	-	-
A7	27.82	126.97	1264	Foram	7	23.71	1.26	0.53	3.32	3.18	4.55	4	24.01	1.23	0.54	3.62	3.48	4.85
A7	27.82	126.98	1264	Mg/Ca	7	-	-	-	-	-	-	4	-	-	-	-	-	-
RN93-PC1	28.56	127.22	1022	Foram	1	22.43	-	-	2.69	2.32	3.70	1	22.43	0.00	-	2.68	2.32	3.70
RN92-PC3	28.88	130.67	2510	Foram	2	21.12	0.95	0.67	0.37	0.21	0.92	0	-	-	-	-	-	-
MD02-2575	29.02	-87.12	847	Mg/Ca	5	-	-	-	-	-	-	2	-	-	-	-	-	-
RN94-PC3	30.92	131.85	1536	Foram	2	21.56	1.56	1.10	-8.99	1.21	2.64	2	21.56	1.56	1.10	1.40	1.21	2.64
ST.19	31.10	138.67	3336	Alkenone	1	-	-	-	-	-	-	0	-	-	-	-	-	-

B-3GC	31.48	128.52	555	Foram	6	20.40	0.92	0.33	2.64	2.59	4.39	3	20.26	0.59	0.30	2.50	2.45	4.25
KY07-04-PC1	31.63	128.95	758	Mg/Ca	12	-	-	-	-	-	-	7	-	-	-	-	-	
RN92-PC4	31.67	128.72	710	Foram	3	20.40	0.59	0.34	2.61	2.59	4.39	1	20.61	0.00	-	2.82	2.80	4.60
ODP1012B	32.28	-118.38	1772	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	
ST.14	32.67	138.46	3252	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	
KNR140-2_51GGC	32.78	-76.28	1790	Foram	3	26.32	1.62	0.82	4.71	4.54	4.67	1	27.07	0.00	-	5.46	5.29	5.42
ODP969E	33.84	24.88	2201	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	
ODP 969	33.84	24.88	2200	Foram	2	16.40	0.40	0.28	-0.05	-0.02	0.30	1	16.60	0.00	-	0.15	0.18	0.50
ODP967D	34.07	32.73	2551	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	
ODP1017E	34.54	-121.11	955	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	
SSDP-102	34.95	128.88	40	Alkenone	16	-	-	-	-	-	-	10	-	-	-	-	-	
TTR17-MS419G	35.45	-4.62	410	Foram	1	11.33	-	-	-4.18	-4.25	-4.14	1	11.33	0.00	-	-4.18	-4.25	-4.14
KS310	35.55	-1.57	1900	Foram	1	13.33	-	-	-1.60	-1.97	-1.50	0	-	-	-	-	-	
MD81-LC21	35.66	26.58	1522	Foram	5	15.93	0.29	0.13	-0.51	-0.30	-0.16	3	15.84	0.10	0.05	-0.60	-0.39	-0.24
ODP 973	35.78	18.95	3695	Foram	2	15.94	1.30	0.92	0.24	0.30	0.63	1	15.28	0.00	-	-0.42	-0.36	-0.03
ODP977	36.03	-1.96	1984	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	
MD95-2043	36.14	-2.62	1841	Alkenone	9	-	-	-	-	-	-	4	-	-	-	-	-	
MD 95-2043	36.14	-2.62	1841	Foram	4	14.67	0.20	0.11	-1.33	-0.15	-0.32	2	14.68	0.18	0.13	-0.43	-0.14	-0.31
MD95-2043	36.14	-2.62	1841	Dinocyst	5	13.79	1.57	0.57	-0.44	-1.03	-1.20	2	13.43	0.64	0.45	-1.68	-1.38	-1.55
ODP 977	36.19	-1.57	1984	Foram	2	13.84	1.81	1.28	-0.86	-0.98	-0.90	1	14.75	0.00	-	0.05	-0.07	0.01
ODP Leg 161 Site976 HoleC	36.21	-4.31	1108	Dinocyst	2	15.43	0.00	0.00	0.00	-0.69	-0.04	1	15.43	0.00	-	0.00	-0.69	-0.04
ODP 964	36.26	17.74	3657	Foram	1	15.69	-	-	0.21	0.42	0.73	1	15.69	0.00	-	0.21	0.42	0.73
M39-008	36.38	-7.08	576	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	
GeoB5901-2	36.38	-7.07	574	Alkenone	29	-	-	-	-	-	-	14	-	-	-	-	-	
RL11	36.75	17.72	3376	Alkenone	2	-	-	-	-	-	-	1	-	-	-	-	-	
CH07-98-GGC19	36.87	-74.57	1049	Alkenone	13	-	-	-	-	-	-	6	-	-	-	-	-	
MD04-2747 CQ	36.95	11.67	770	Dinocyst	2	14.47	0.04	0.03	-0.13	-0.37	-0.18	1	14.49	0.00	-	-0.11	-0.35	-0.16

MD04-2797CQ	36.95	11.67	771	Foram	2	14.39	1.10	0.78	-0.21	-0.45	-0.26	1	14.94	0.00	-	0.34	0.10	0.29
M40-4-SL78/78MUC8	37.04	13.19	470	Alkenone	2	-	-	-	-	-	-	2	-	-	-	-	-	-
SU81-18	37.77	-10.18	3135	Alkenone	2	-	-	-	-	-	-	0	-	-	-	-	-	-
MD95-2042	37.80	-10.17	3146	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
MD01-2334	37.80	-10.17	3166	Mg/Ca	2	-	-	-	-	-	-	2	-	-	-	-	-	-
MD01-2443	37.88	-10.18	2925	Alkenone	6	-	-	-	-	-	-	3	-	-	-	-	-	-
BS79-33	38.26	14.03	1282	Alkenone	1	-	-	-	-	-	-	1	-	-	-	-	-	-
BS79-38	38.41	13.58	1489	Alkenone	3	-	-	-	-	-	-	2	-	-	-	-	-	-
D13882	38.63	-9.45	88	Alkenone	8	-	-	-	-	-	-	4	-	-	-	-	-	-
ODP 975	38.89	4.50	2426	Foram	2	14.45	0.48	0.34	-0.01	-0.17	0.14	1	14.69	0.00	-	0.23	0.07	0.38
ODP 974	40.35	12.13	3493	Foram	2	12.35	0.03	0.02	-1.86	-1.88	-1.56	2	12.35	0.04	0.03	-1.86	-1.88	-1.56
MD95-2040	40.58	-9.86	2465	Foram	4	13.40	1.50	0.66	-0.63	-0.62	-0.45	2	13.64	0.93	0.66	-0.39	-0.38	-0.21
MD01-2430	40.80	27.73	580	Dinocyst	2	4.89	1.06	0.75	-	-9.55	-6.05	0	-	-	-	-	-	-
M44-KL71	40.84	27.76	566	Alkenone	5	-	-	-	-	-	-	3	-	-	-	-	-	-
AD91-17	40.87	18.64	844	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-
M40/4 80 SL	40.95	11.00	1881	Foram	2	12.34	0.02	0.01	-1.55	-1.68	-1.48	1	12.33	0.00	-	-1.57	-1.69	-1.49
ODP1019C	41.68	-124.93	980	Alkenone	9	-	-	-	-	-	-	3	-	-	-	-	-	-
CH69-K09	41.76	-47.35	4100	Foram	3	10.10	1.24	0.81	-2.46	-2.68	-2.04	2	10.26	1.52	1.07	-2.30	-2.52	-1.88
IN68-9	41.78	17.90	1234	Foram	2	13.86	0.04	0.03	0.25	0.21	0.24	2	13.86	0.03	0.02	0.25	0.20	0.24
MD99-2346	42.07	4.15	2100	Foram	4	12.12	0.31	0.13	-0.60	-0.96	-0.94	2	12.03	0.18	0.13	-0.69	-1.05	-1.03
M40/4 82-2-SL	42.31	3.77	1070	Foram	10	12.11	0.92	0.25	-0.44	-0.98	-0.93	5	12.19	0.92	0.33	-0.37	-0.89	-0.85
W8709A-8TC	42.54	-127.68	3111	Alkenone	1	-	-	-	-	-	-	0	-	-	-	-	-	-
OCE326-GGC26	43.48	-54.87	3975	Alkenone	7	-	-	-	-	-	-	3	-	-	-	-	-	-
OCE326-GGC26	43.48	-54.87	3975	Mg/Ca	1	-	-	-	-	-	-	1	-	-	-	-	-	-
OCE326-GGC30	43.88	-62.80	250	Alkenone	15	-	-	-	-	-	-	8	-	-	-	-	-	-
HU-90-031-	44.49	-55.19	1381	Dinocyst	1	2.74	0.00	0.00	-0.24	-0.26	-0.24	1	2.74	0.00	-	-0.24	-0.26	-0.24

044																				
MD01-2412	44.53	145.04	1225	Alkenone	14	-	-	-	-	-	-	-	7	-	-	-	-	-	-	
MD-95-2033	44.66	-55.62	1412	Dinocyst	4	5.12	0.37	0.17	2.48	2.12	2.14	2	5.05	0.36	0.26	2.41	2.05	2.07		
MR00-K03-PC01	46.19	152.32	2793	Alkenone	4	-	-	-	-	-	-	1	-	-	-	-	-	-	-	
HU-2003-033-011	48.15	-51.50	241	Dinocyst	5	-0.79	1.89	1.01	0.13	0.06	-1.22	3	-0.93	1.93	1.10	-0.01	-0.08	-1.36		
GGC15	48.17	151.34	1980	Alkenone	1	-	-	-	-	-	-	0	-	-	-	-	-	-	-	
MD-99-2220	48.60	-68.63	320	Dinocyst	6	1.60	2.92	1.47	-	2.53	-	2	2.06	3.02	2.14	-	2.99	-		
BENGAL 13078/16	48.83	-16.45	4844	Foram	2	14.23	3.00	2.12	2.71	2.53	2.48	1	15.73	0.00	-	4.21	4.03	3.98		
JT96-09	48.90	-126.88	920	Alkenone	2	-	-	-	-	-	-	0	-	-	-	-	-	-	-	
HU-90-031-019	49.29	-63.99	322	Dinocyst	4	-0.35	0.19	0.08	-0.08	0.56	-0.04	2	-0.41	0.06	0.04	-0.14	0.50	-0.10		
PC4	49.49	146.13	664	Alkenone	3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	
HU-91-045-094	50.20	-45.69	3448	Dinocyst	2	4.30	0.89	0.63	-1.01	-0.97	-0.57	1	4.75	0.00	-	-0.57	-0.52	-0.12		
PC2	50.40	148.32	1258	Alkenone	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-	
MD01-2416	51.00	168.00	2317	Mg/Ca	12	-	-	-	-	-	-	4	-	-	-	-	-	-	-	
CH77-02	52.07	-36.08	3744	Foram	8	6.47	1.72	0.59	-0.59	-0.24	-0.38	5	6.22	0.37	0.15	-0.84	-0.50	-0.63		
HU-91-045-080	53.06	-33.53	3024	Dinocyst	1	9.61	-	-	2.60	2.91	2.70	1	9.61	0.00	-	2.60	2.91	2.70		
HU-91-045-085	53.98	-38.64	3603	Dinocyst	5	8.28	2.88	1.27	2.94	2.40	2.51	3	7.47	1.69	0.86	2.13	1.59	1.70		
NEAP17K	54.68	-28.35	2734	Foram	9	8.91	1.50	0.55	0.80	0.88	1.08	4	9.12	1.50	0.70	1.02	1.09	1.29		
NA87-22	55.50	-14.07	2161	Foram	6	9.83	0.98	0.32	0.04	-0.03	-0.02	2	9.82	0.04	0.03	0.03	-0.04	-0.03		
MD-99-2254	56.80	-30.66	2440	Dinocyst	7	4.04	2.25	1.46	-2.81	-3.00	-3.12	4	3.48	0.72	0.33	-3.37	-3.56	-3.68		
MD99-2251	57.43	-27.90	2620	Mg/Ca	17	-	-	-	-	-	-	7	-	-	-	-	-	-		
IOW225517	57.67	7.09	293	Alkenone	11	-	-	-	-	-	-	5	-	-	-	-	-	-		
IOW225514	57.84	8.70	420	Alkenone	16	-	-	-	-	-	-	8	-	-	-	-	-	-		
MD-99-2227	58.21	-48.37	3460	Dinocyst	4	2.44	4.01	1.88	-0.72	-0.51	-0.56	2	2.91	3.61	2.55	-0.24	-0.03	-0.09		
HU-90-013-	58.21	-48.31	3380	Dinocyst	5	2.81	1.31	0.54	-0.35	-0.14	-0.20	3	3.12	0.90	0.46	-0.04	0.17	0.12		

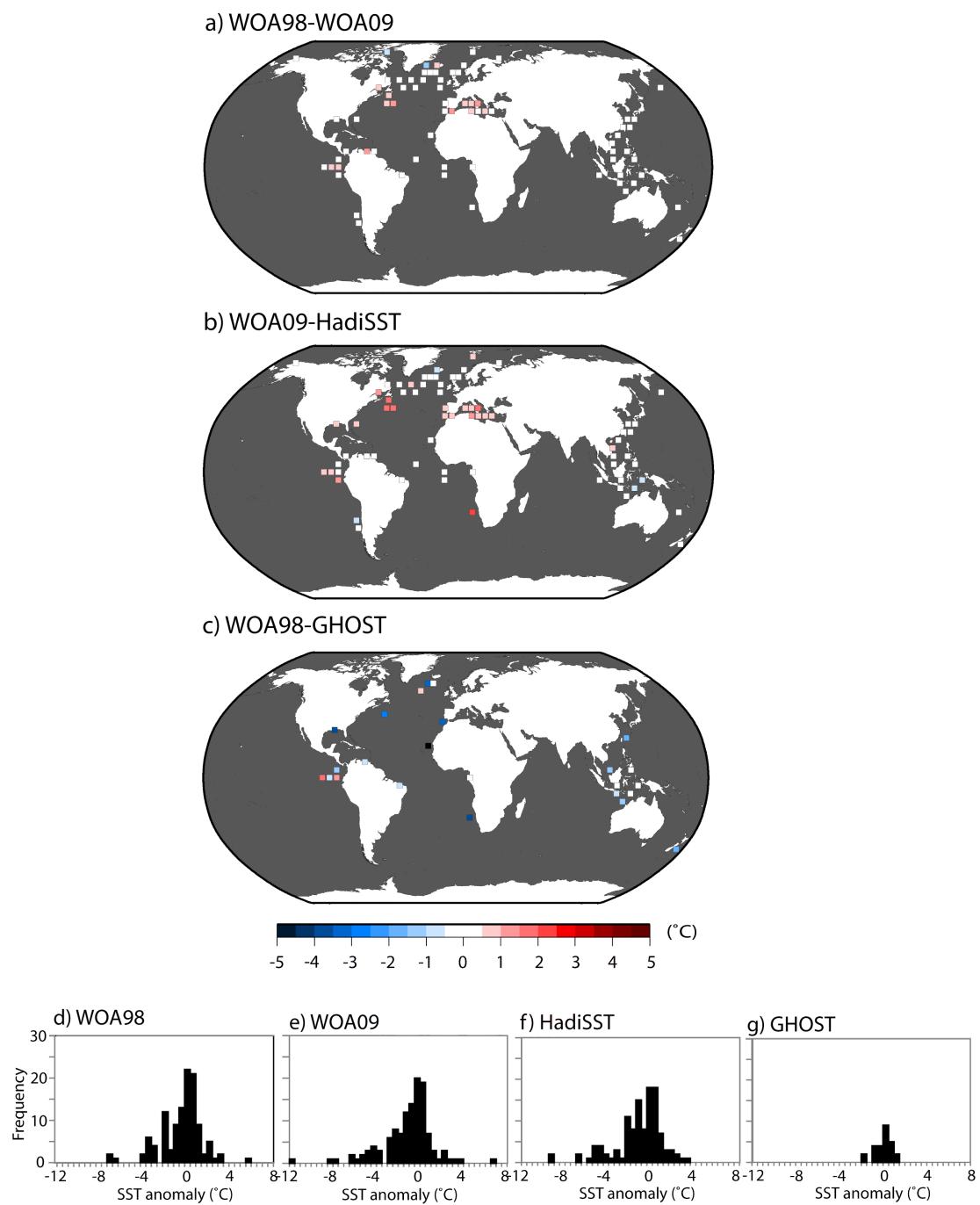
013																				
HU-84-030-021 TWC	58.37	-57.51	2853	Dinocyst	7	3.01	3.10	0.98	0.06	1.05	1.83	0	-	-	-	-	-	-	-	
HU-84-030-021 PC	58.37	-57.51	2853	Dinocyst	8	2.45	3.33	1.20	0.62	0.49	1.27	3	2.98	2.09	1.05	0.59	1.02	1.80		
MD95-2015	58.76	-25.96	2630	Alkenone	11	-	-	-	-	-	-	6	-	-	-	-	-	-	-	
MD95-2015	58.76	-25.96	2630	Foram	3	7.94	0.26	0.14	0.18	-0.20	-0.19	1	7.77	0.00	-	0.01	-0.37	-0.36		
HU-91-045-072	58.94	-28.74	2237	Dinocyst	11	3.65	4.47	1.29	-3.40	-3.81	-3.89	5	3.76	1.97	0.86	-3.29	-3.70	-3.78		
HM03-133-25	60.11	-6.07	1156	Dinocyst	9	5.17	4.29	1.77	-3.05	-2.95	-2.90	4	5.12	4.57	2.14	-3.10	-3.00	-2.95		
ODP984	61.00	-25.00	1648	Mg/Ca	11	-	-	-	-	-	-	6	-	-	-	-	-	-	-	
LINK14	61.80	-6.30	346	Foram	3	6.24	0.64	0.32	-0.66	-1.48	-1.20	1	5.91	0.00	-	-1.00	-1.81	-1.53		
RAPID-12-1K	62.09	-17.82	1938	Mg/Ca	5	-	-	-	-	-	-	3	-	-	-	-	-	-	-	
MD99-2284	62.37	-0.98	1500	Foram	8	5.85	2.18	0.71	-0.89	-1.11	-1.32	4	5.54	2.00	0.92	-1.20	-1.42	-1.63		
MD-99-2269	66.64	-20.86	365	Dinocyst	20	1.69	2.18	0.49	-0.98	-1.17	-1.15	10	1.78	1.03	0.35	-0.88	-1.08	-1.06		
MD95-2011	66.97	7.63	1048	Alkenone	8	-	-	-	-	-	-	4	-	-	-	-	-	-	-	
MD95-2011	66.97	7.63	1048	Foram	10	6.04	0.77	0.26	-0.58	-0.69	-0.49	6	6.09	0.73	0.29	-0.53	-0.64	-0.44		
JR51-GC35	67.00	-17.96	420	Alkenone	11	-	-	-	-	-	-	5	-	-	-	-	-	-	-	
M23323	67.77	5.92	1286	Dinocyst	10	3.92	2.62	0.79	-2.48	-2.56	-2.17	5	4.11	1.22	0.60	-2.28	-2.36	-1.97		
JM-96-1207	68.10	-29.35	404	Dinocyst	9	0.65	1.82	0.60	-0.07	1.00	-	5	0.95	1.16	0.47	0.24	1.31	-		
2005-804-006	68.99	-106.57	118	Dinocyst	6	-1.34	0.66	0.25	-	-0.77	-	3	-1.23	0.36	0.20	97.77	-0.66	-		
PL-96-112	71.27	42.61	286	Dinocyst	9	1.27	2.75	1.38	0.46	0.32	-0.12	5	1.13	3.87	1.60	0.32	0.18	-0.26		
HLY0501-05	72.69	-157.52	415	Dinocyst	6	0.10	4.82	1.82	1.72	1.56	-	2	-0.36	1.18	0.84	1.26	1.10	-		
2004-804-009	74.19	-81.20	781	Dinocyst	6	-1.38	0.48	0.18	-	-0.58	-	3	-1.32	0.46	0.26	97.68	-0.53	-		
2005-804-004	74.27	-91.09	350	Dinocyst	13	-1.76	0.52	0.18	-	-0.18	-	7	-1.76	0.25	0.13	97.24	-0.18	-		
M23258-2	75.00	13.97	1768	Alkenone	4	-	-	-	-	-	-	2	-	-	-	-	-	-	-	
23258-2	75.00	13.97	1768	Foram	17	1.33	2.65	0.72	-1.59	-1.56	-1.97	9	1.31	2.30	0.70	-1.61	-1.58	-1.99		
HU-91-039-008	77.27	-74.32	663	Dinocyst	4	0.87	2.36	1.13	2.32	2.63	-	4	0.87	2.36	1.13	2.32	2.63	-		

Table 5: Summary information for gridded reconstructions, 5.5-6.5 ka BP

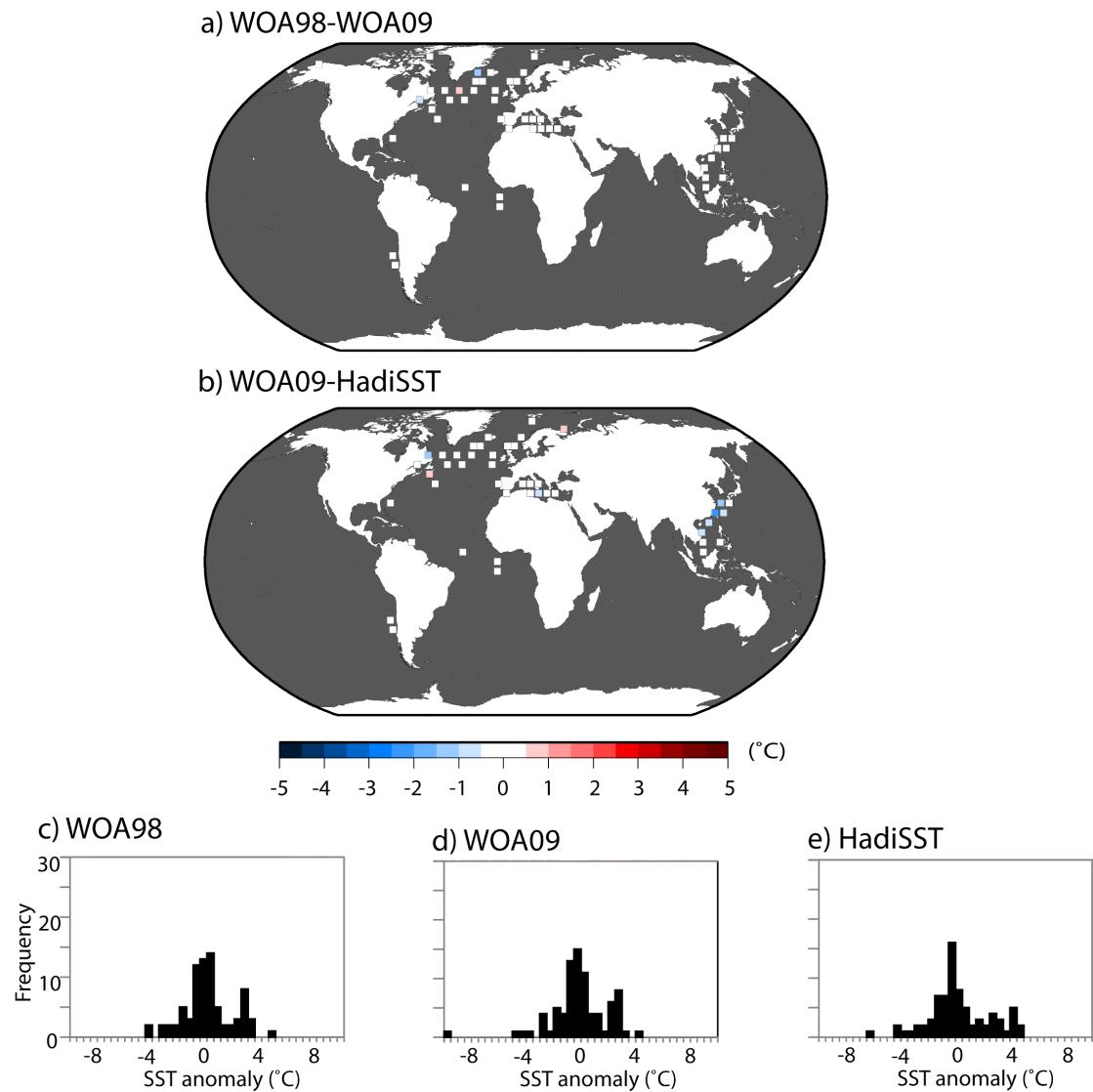
5.00	110.00	2	2	-0.31	0.28	2	2	-0.43	0.40	1	1	-0.53	1.06
5.00	125.00	-	-	-	-	1	1	0.58	0.35	-	-	-	-
10.00	-65.00	-	-	-	-	1	1	-0.92	0.42	-	-	-	-
10.00	-60.00	2	2	0.33	0.12	1	1	0.15	0.07	1	1	0.20	0.11
10.00	50.00	1	1	-0.82	0.18	-	-	-	-	-	-	-	-
10.00	110.00	3	2	-0.44	0.32	1	1	0.05	0.39	1	1	-0.13	0.37
10.00	120.00	1	1	-0.57	0.33	2	2	0.05	0.31	1	1	-0.96	0.55
15.00	110.00	1	1	-0.41	0.39	1	1	0.27	0.20	1	1	-0.72	0.60
20.00	-160.00	1	1	0.33	0.06	-	-	-	-	-	-	-	-
20.00	-20.00	1	1	0.89	0.28	-	-	-	-	-	-	-	-
20.00	115.00	3	2	-0.25	0.34	3	2	-1.04	0.31	2	1	-0.02	0.46
25.00	-15.00	1	1	1.53	0.20	-	-	-	-	-	-	-	-
25.00	35.00	1	1	1.00	0.25	-	-	-	-	-	-	-	-
25.00	65.00	1	1	0.97	0.16	-	-	-	-	-	-	-	-
25.00	120.00	2	1	0.73	0.56	2	1	0.04	0.18	2	1	1.25	0.83
25.00	125.00	3	1	1.73	0.41	4	2	-0.49	0.30	3	1	2.77	0.57
30.00	-90.00	-	-	-	-	1	1	-2.21	0.62	-	-	-	-
30.00	-75.00	1	1	2.59	0.29	1	1	0.06	0.14	1	1	4.71	0.82
30.00	-10.00	1	1	1.67	0.24	-	-	-	-	-	-	-	-
30.00	130.00	2	1	1.71	0.40	3	2	-0.08	0.58	2	1	2.63	0.34
35.00	-75.00	1	1	-0.40	0.16	-	-	-	-	-	-	-	-
35.00	-10.00	3	1	0.97	0.15	-	-	-	-	-	-	-	-
35.00	-5.00	3	3	-0.08	0.48	2	2	-0.08	0.69	2	2	-0.88	0.34
35.00	15.00	1	1	-2.93	0.71	-	-	-	-	-	-	-	-
35.00	25.00	2	2	-0.09	0.80	1	1	0.76	0.17	1	1	-0.51	0.13
35.00	30.00	1	1	-0.89	0.92	-	-	-	-	-	-	-	-
35.00	130.00	1	1	2.85	0.38	-	-	-	-	-	-	-	-
40.00	-125.00	1	1	-1.89	0.35	-	-	-	-	-	-	-	-
40.00	-55.00	1	1	1.15	0.25	-	-	-	-	-	-	-	-
40.00	-50.00	1	1	-2.99	0.99	1	1	-4.00	1.17	1	1	-2.46	0.81
40.00	-10.00	2	2	-0.85	0.51	1	1	-0.69	0.89	1	1	-0.63	0.66
40.00	5.00	2	1	-1.16	0.25	2	1	-2.02	0.36	2	1	-0.52	0.19

40.00	20.00	1	1	-1.02	0.06	-	-	-	-	-	-	-	-	-
45.00	-65.00	1	1	5.30	0.64	-	-	-	-	-	-	-	-	-
45.00	-55.00	2	1	-1.20	0.55	2	1	-3.93	0.80	2	1	1.31	0.59	
45.00	145.00	1	1	6.03	0.50	-	-	-	-	-	-	-	-	-
45.00	150.00	1	1	3.41	0.64	-	-	-	-	-	-	-	-	-
50.00	-70.00	-	-	-	-	-	-	-	-	-	-	-	-	-
50.00	-65.00	1	1	-1.54	0.21	1	1	-3.82	0.28	1	1	-0.08	0.08	
50.00	-35.00	1	1	-1.34	0.60	1	1	-2.25	0.61	1	1	-0.59	0.59	
50.00	145.00	1	1	4.70	0.62	-	-	-	-	-	-	-	-	-
50.00	165.00	-	-	-	-	1	1	-4.21	0.70	-	-	-	-	-
55.00	-60.00	1	1	1.36	1.09	1	1	1.47	1.25	1	1	0.62	0.98	
55.00	-60.00	1	1	0.49	1.34	1	1	0.24	1.55	1	1	0.06	1.20	
55.00	-50.00	2	1	0.24	1.20	2	1	1.20	1.16	2	1	-0.54	1.21	
55.00	-40.00	1	1	2.93	1.49	1	1	2.98	1.75	1	1	2.94	1.27	
55.00	-30.00	2	2	-0.49	1.38	3	3	-0.76	1.55	2	2	-1.00	1.01	
55.00	-15.00	1	1	0.20	0.47	1	1	0.21	0.75	1	1	0.04	0.32	
55.00	5.00	1	1	4.69	0.35	-	-	-	-	-	-	-	-	
55.00	10.00	1	1	4.28	0.26	-	-	-	-	-	-	-	-	
60.00	-30.00	1	1	-2.50	0.55	1	1	-0.73	0.84	1	1	-3.40	1.29	
60.00	-25.00	2	2	1.32	0.30	2	2	-1.02	0.36	1	1	0.18	0.14	
60.00	-20.00	-	-	-	-	1	1	-1.39	0.79	-	-	-	-	
60.00	-5.00	2	2	-1.82	1.13	2	2	-1.48	1.20	2	2	-1.86	1.04	
60.00	0.00	1	1	-1.10	0.71	1	1	-1.22	0.77	1	1	-0.89	0.71	
65.00	-30.00	1	1	2.11	0.56	1	1	5.55	0.69	1	1	-0.07	0.60	
65.00	-20.00	2	2	1.58	0.83	1	1	-0.23	0.63	1	1	-0.98	0.49	
65.00	5.00	3	3	0.49	0.46	2	2	-1.50	0.50	2	2	-1.53	0.52	
70.00	-160.00	1	1	1.58	0.89	1	1	1.94	0.15	1	1	1.72	1.82	
70.00	-110.00	-	-	-	-	-	-	-	-	-	-	-	-	
70.00	40.00	1	1	0.54	1.32	1	1	0.28	1.25	1	1	0.46	1.38	
75.00	-80.00	-	-	-	-	-	-	-	-	-	-	-	-	
75.00	-75.00	1	1	1.35	0.59	1	1	1.51	0.54	1	1	2.32	1.13	
75.00	15.00	2	2	0.83	0.54	1	1	-0.96	0.89	1	1	-1.59	0.72	

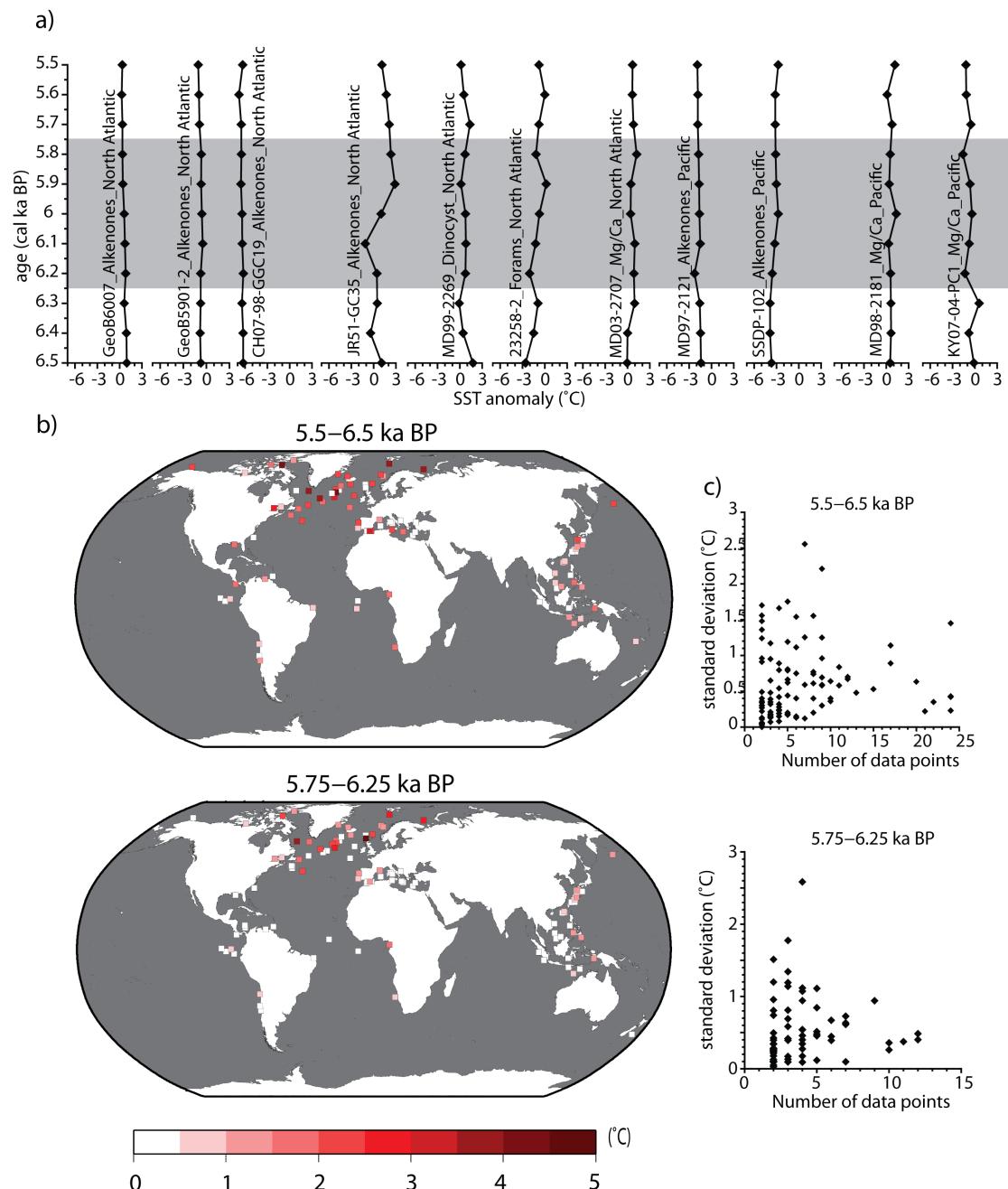
SI Figure 1: Between-sample variability in reconstructed summer sea surface temperatures (SSTS) (a) Reconstructed summer SST anomalies at individual sites with sample resolution of <100 years in 1000-yr window from 5.5 to 6.5 ka BP used for mid-Holocene (MH) reconstructions. The grey bar shows the smaller 500-yr window from 5.75 to 6.25 ka BP. (b) Variability summer SST anomalies within 6 ± 0.5 ka BP and 6 ± 0.25 ka BP time windows. (c) Comparison of number of data points per record versus standard deviation at all sites.



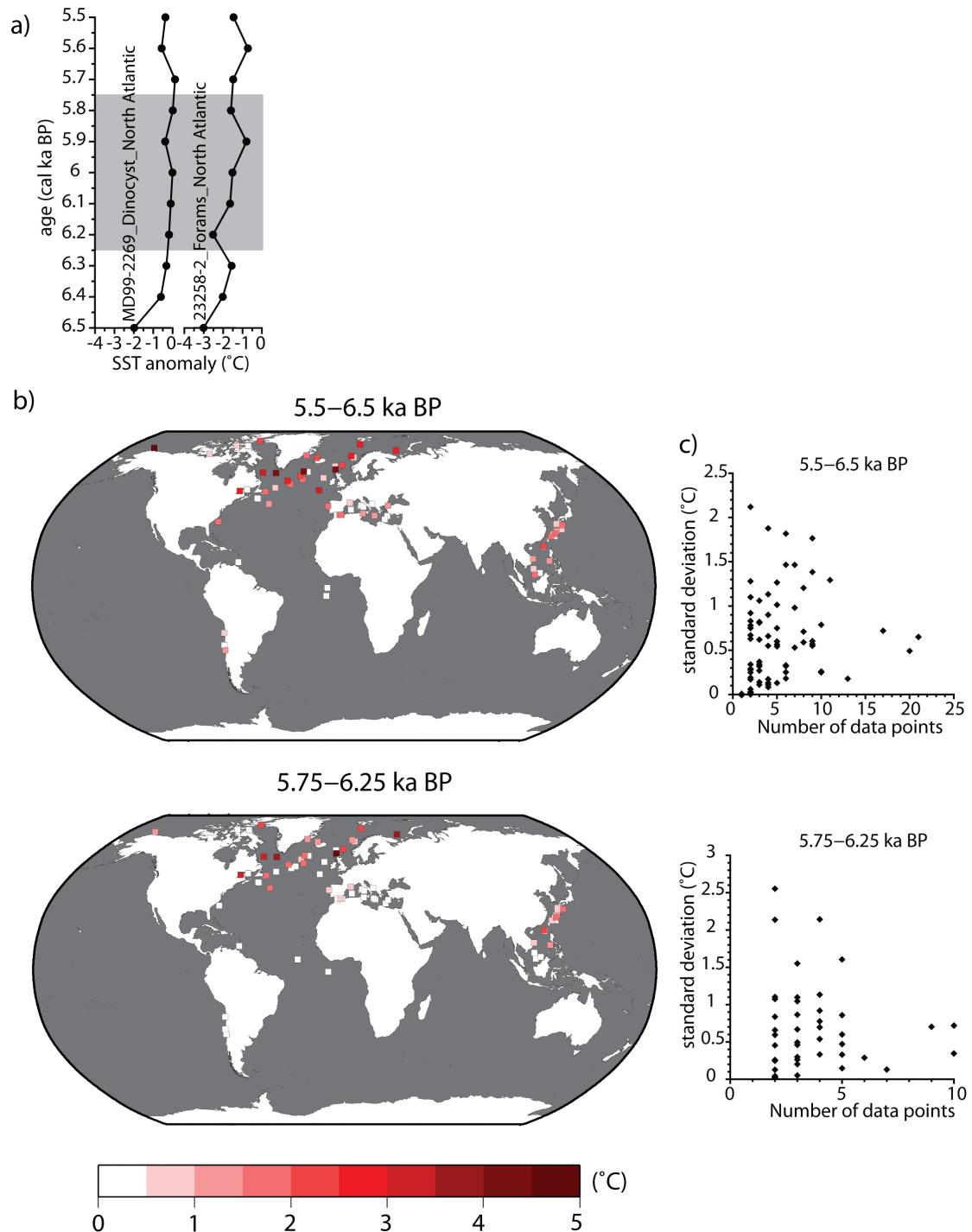
SI Figure 2: Between-sample variability in reconstructed winter sea surface temperatures (SSTS) (a) Reconstructed winter SST anomalies at individual sites with sample resolution of <100 years in 1000-yr window from 5.5 to 6.5 ka BP used for mid-Holocene (MH) reconstructions. The grey bar shows the smaller 500-yr window from 5.75 to 6.25 ka BP. (b) Variability winter SST anomalies within 6 ± 0.5 ka BP and 6 ± 0.25 ka BP time windows. (c) Comparison of number of data points per record versus standard deviation at all sites.



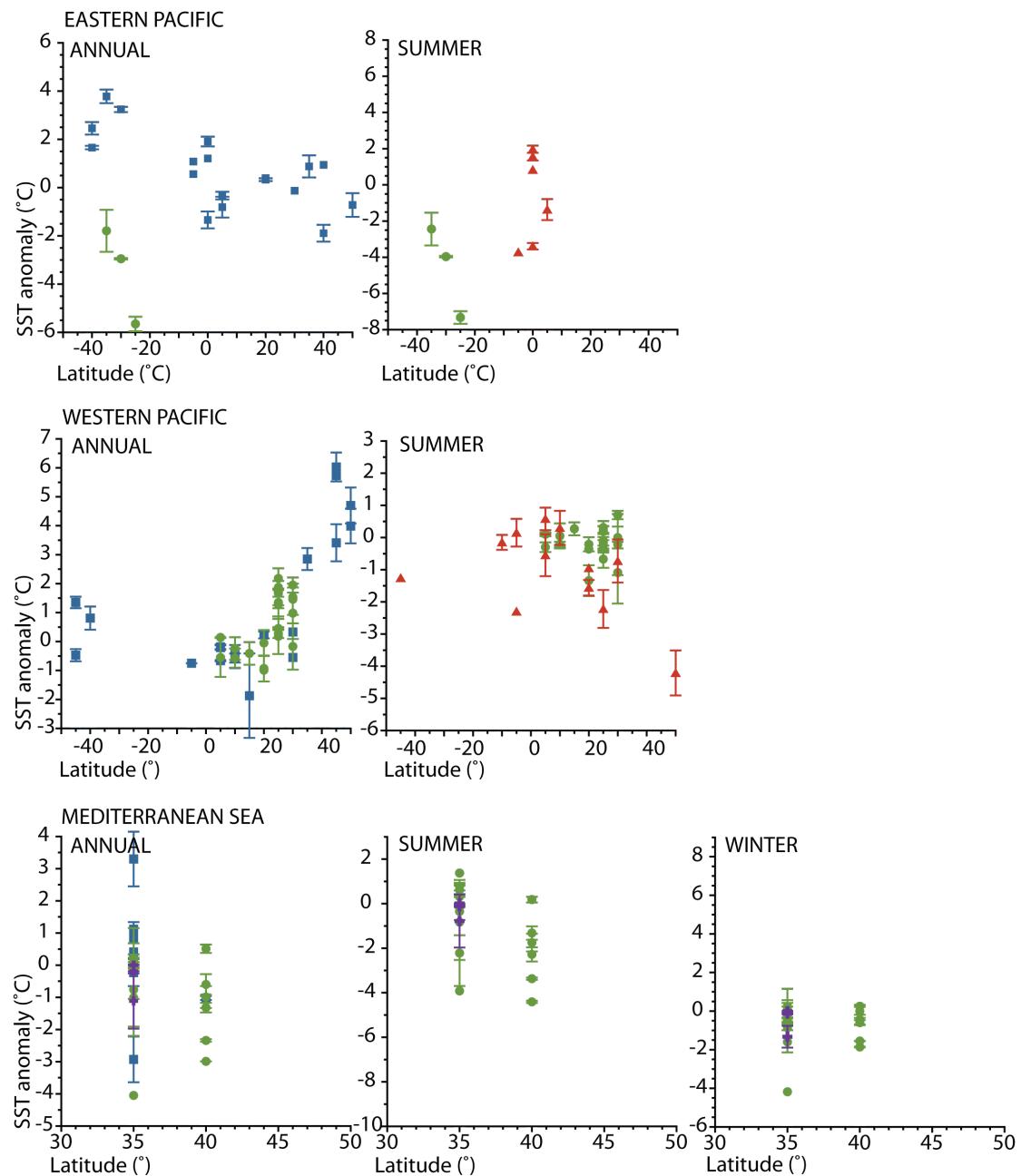
SI Figure 3: Gridded (5x5) summer sea surface temperature (SST) mid-Holocene (MH) anomalies using different modern reference climates: difference between MH anomalies calculated relative to (a) World Ocean Atlas data set (WOA98) and the updated version of this data set, WOA09, (b) WOA98 and Hadley Center Sea Ice and Sea Surface Temperature (HADiSST) data set, and (c) WOA98 and the Global database for alkenone and Mg/Ca-derived Holocene Sea Surface Temperature (GHOST) data set. The right hand side panels show the distribution of anomalies reconstructed using each of the reference climates: (d) WOA98, (e) WOA09, (f) HADiSST, and (g) GHOST.

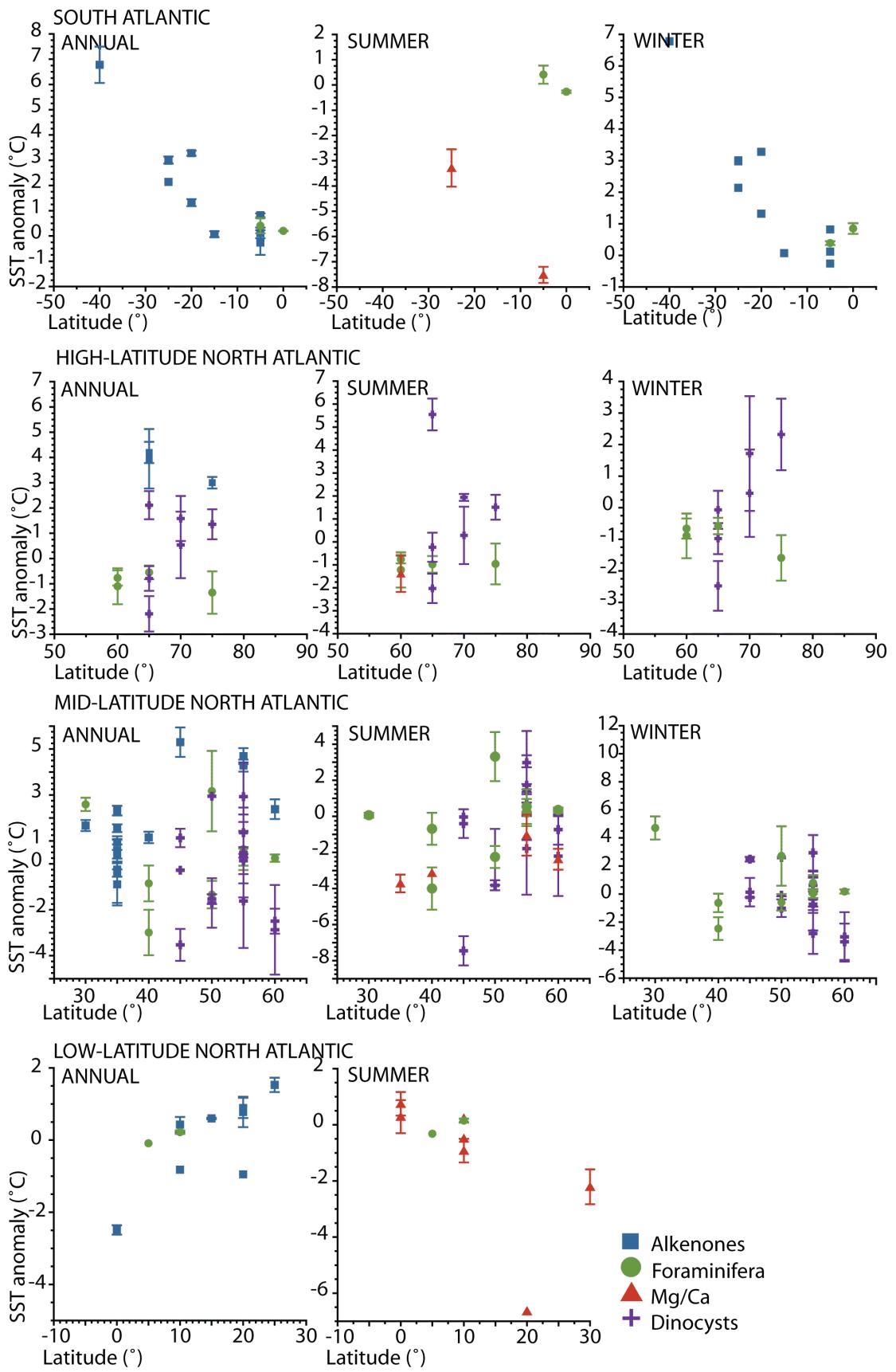


SI Figure 4: Gridded (5x5) winter sea surface temperature (SST) mid-Holocene (MH) anomalies using different modern reference climates: difference between MH anomalies calculated relative to (a) World Ocean Atlas data set (WOA98) and the updated version of this data set, WOA09, (b) WOA98 and Hadley Center Sea Ice and Sea Surface Temperature (HADiSST) data set. The right hand side panels show the distribution of anomalies reconstructed using each of the reference climates : (c) WOA98, (d) WOA09, (e) HADiSST.



SI Figure 5: Seasonal sensor comparison using average sea surface temperature anomaly and standard deviations of individual records on a $5 \times 5^\circ$ grid separated by region.





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