

Supplementary Materials: New Record of Dust Input and Provenance During Glacial Periods in Western Australia Shelf (IODP Expedition 356. Site U1461) from the Middle to Late Pleistocene

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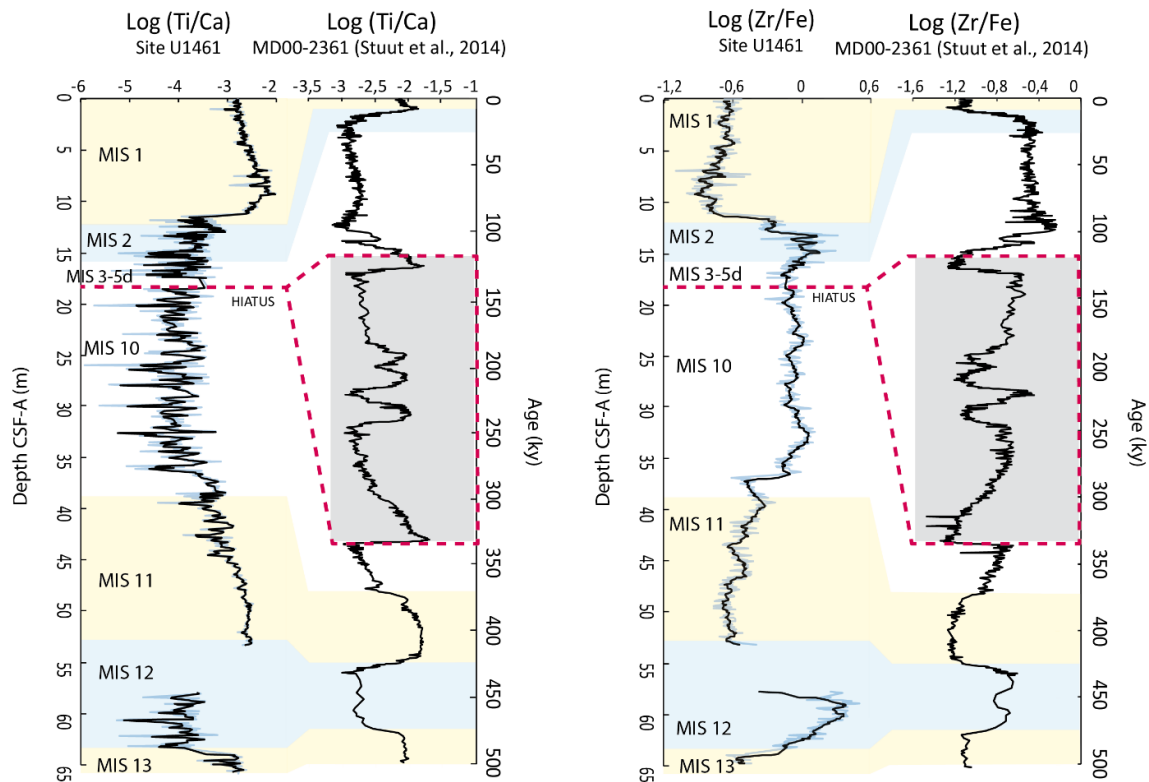


Figure S1. Comparison between Log(Ti/Ca) and Log(Zr/Fe) from the Site U1461 and the ones from the core MD00-2361.

Table S1. Tie points for the age model. The transitions between the MIS have been dated following Liesecki and Raymo (2005) age.

Reported in:	Depth (m) CSF-A	Radiocarbon age (year BP)	Calendar age (cal year BP)	Age (ka)
Ishiwa et al. (2019)	0.1	1460 ± 40	1084	
Ishiwa et al. (2019)	1.1	2580 ± 50	2336	
Ishiwa et al. (2019)	4.02	4850 ± 30	5257	
Ishiwa et al. (2019)	5.00	5290 ± 30	5703	
Ishiwa et al. (2019)	7.81	6020 ± 40	6334	
Ishiwa et al. (2019)	7.1	6830 ± 40	7409	
Ishiwa et al. (2019)	8.1	6950 ± 40	7516	
Ishiwa et al. (2019)	8.5	7570 ± 40	8119	
Ishiwa et al. (2019)	9.5	8020 ± 40	8548	
Hallenberg et al.. (2019)	10.8	8760 ± 40	9513	
Hallenberg et al.. (2019)	11.8	9707 ± 84	11,248	
Hallenberg et al.. (2019)	12.3	9932 ± 86	11,746	
Ishiwa et al. (2019)	13.01	11,990 ± 50	13,526	
Ishiwa et al. (2019)	13.27	14,620 ± 50	17,458	
Ishiwa et al. (2019)	13.29	20,470 ± 60	24,257	
Ishiwa et al. (2019)	13.31	16,920 ± 60	20,056	
Hallenberg et al.. (2019)	13.3	16,010 ± 50	18,967	
Ishiwa et al. (2019)	13.4	20,160 ± 60	23,923	
FO E. huxleyi	17.85			<290
MIS 5D	17.9			109
Transition	18			370

MIS10-MIS 9		
Transition		
MIS10-MIS11	40	385
Transition		
MIS11-MIS12	55	427
LO <i>P. lacunosa</i>	55.5	440
Transition		
MIS12-MIS13	64	472

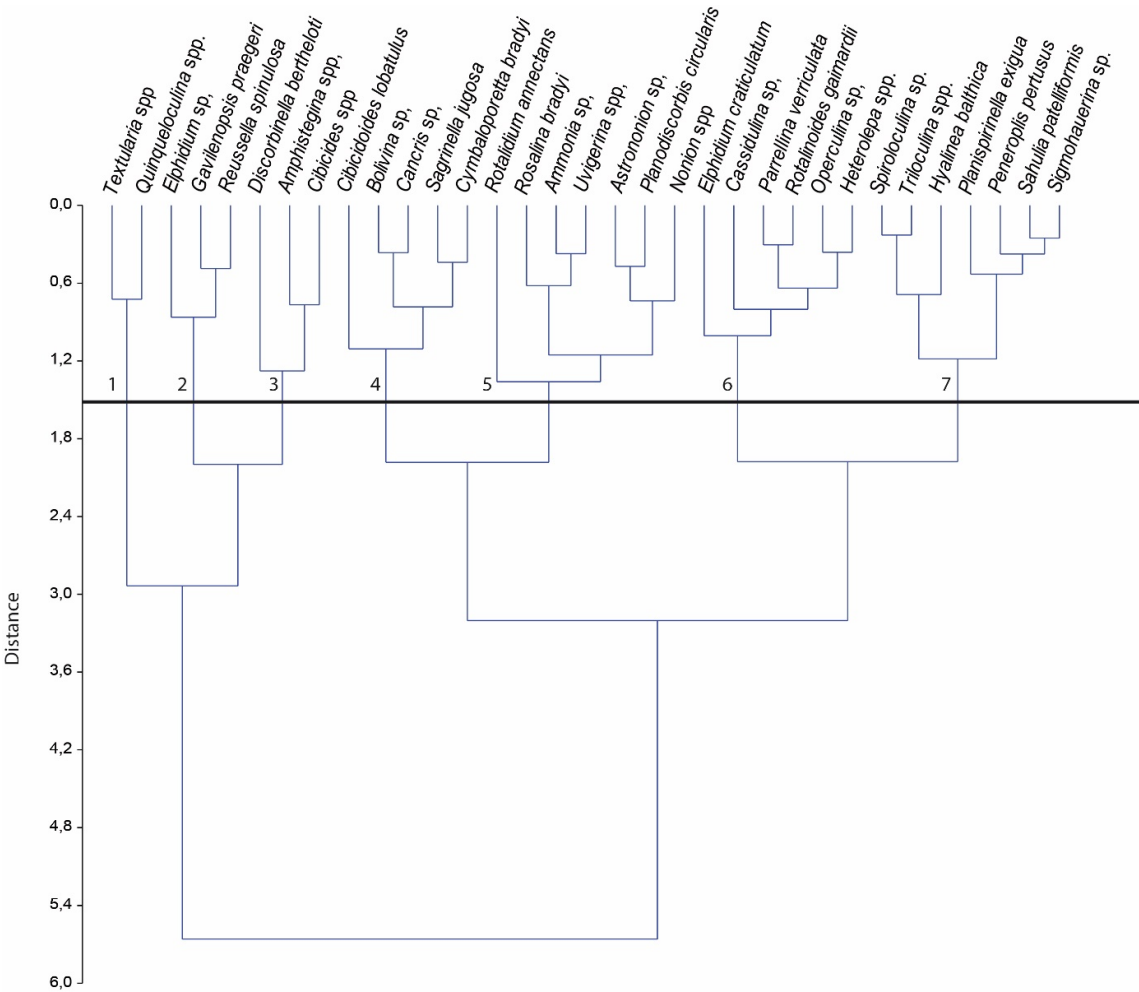


Figure S2. Hierarchical analysis of the species with more than 2% of abundance following the Ward’s method. The black line is the chosen distance to form the clusters. The numbers correspond to the name of the cluster.

Table S2. Pourcentage of cluster abundances. Cluster 7a is composed of *Triloculina* sp., *Spiroloculina* sp., *Hyalinea balthica*, *Sahulia patteliformis* and *Sigmohauerina* sp.. Cluster 7b is composed of *Planispirinella exigua* and *Peneroplis pertusus*.

Top depth CSF- A (m)	Cluster 1 %	Cluster 2 %	Cluster 3 %	Cluster 4 %	Cluster 5 %	Cluster 6 %	Cluster 7a %	Cluster 7b %
0.4	15.98	10.65	35.02	9.10	4.72	0.44	18.76	0.17
2	24.21	10.29	22.28	10.29	3.27	0.85	21.91	0.12
3.5	28.78	8.74	18.91	9.18	4.37	0.25	25.78	0.00
5	25.47	7.95	27.92	8.63	3.62	0.11	23.02	0.00
6.7	26.77	14.12	19.83	11.19	2.16	0.23	21.91	0.00
8.2	29.88	10.62	20.31	11.27	2.36	0.52	21.89	0.13
9.7	28.53	15.69	17.22	15.37	2.92	0.13	16.52	0.06
11.4	29.64	15.00	18.57	13.21	10.00	0.00	12.14	0.00
12.75	37.95	18.57	10.26	7.98	7.33	0.65	8.47	0.98
14.25	41.04	7.17	20.72	2.79	6.37	11.95	5.98	0.40
15.75	27.99	17.54	29.85	1.49	5.97	3.73	8.58	0.75
17.25	26.15	17.31	28.27	6.44	3.37	0.48	14.33	2.31
18.75	30.64	13.58	11.71	11.13	6.36	0.29	17.34	3.32
19.85	28.03	19.14	18.19	4.72	5.26	0.13	13.48	5.80
20.9	28.06	14.21	17.63	6.65	7.73	0.36	15.11	5.40
23.9	28.40	17.12	21.79	6.42	6.61	1.36	9.34	3.89
25.4	22.50	14.93	28.36	3.21	7.56	1.13	11.34	4.73
26.9	26.18	19.53	22.75	6.01	3.65	2.36	9.87	5.15
28.4	29.49	14.18	15.31	8.51	6.81	0.95	13.80	6.62
29.7	23.24	18.26	13.28	12.03	5.81	0.21	17.43	3.94
30.4	20.45	16.61	12.46	11.50	12.14	1.60	14.38	4.47
31.9	21.67	17.78	8.33	14.17	8.61	0.28	17.50	5.28
33.4	24.93	14.21	14.21	13.40	7.77	1.07	11.26	5.63
34.9	26.10	13.86	18.64	9.94	5.83	0.86	13.10	5.16
36.4	26.19	14.54	19.80	8.15	8.27	1.13	12.16	3.01
37.9	23.49	14.33	23.02	11.12	8.07	0.63	11.43	2.19
39.1	19.41	16.99	24.78	9.30	8.50	2.15	10.29	2.06
39.9	11.61	17.76	50.91	4.06	3.50	1.82	4.34	2.10
41.4	10.80	20.60	47.49	5.53	3.64	0.75	4.40	3.27
42.9	9.28	18.04	55.32	4.52	2.77	2.55	3.00	1.13
44.4	7.03	26.66	47.82	6.11	2.44	4.20	1.91	0.53
45.9	8.96	22.31	34.46	21.71	3.59	1.00	2.39	0.20
47.4	3.78	32.44	31.11	18.89	2.89	1.78	1.78	0.00
49.4	8.91	24.90	40.69	11.94	3.44	2.83	1.62	0.00
50.9	6.42	18.92	29.39	28.72	8.45	0.00	0.34	0.00
52.4	4.68	18.72	33.83	25.11	5.53	1.28	0.43	0.00
53.9	17.06	15.89	28.74	9.11	6.07	7.94	2.80	0.00
54.55	6.42	1.35	53.04	1.69	5.74	14.86	0.00	0.00
57.6	16.00	16.00	14.00	2.00	0.00	14.00	2.00	0.00
59.1	27.27	4.55	27.27	4.55	4.55	18.18	0.00	0.00
60.6	31.11	0.00	22.22	2.22	8.89	31.11	0.00	0.00
62.3	31.49	5.54	34.01	3.27	3.53	12.09	2.77	0.25
63.8	0.79	14.92	62.46	5.08	4.14	6.70	0.10	0.05