

Table S1. Mean values for the MH and LH time slices. All measurements are on *G. ruber*, unless indicated.

Core	Latitude	Longitude	3kyr-long time slices																	
			0-3K $\delta^{18}\text{Oc}$ (‰)	$\pm 1\sigma$	N	0-3K SST (°C)	$\pm 1\sigma$	N	0-3K $\delta^{18}\text{Osmow}$ (‰)	$\pm 1\sigma$	N	7.5-4.5k $\delta^{18}\text{Oc}$ (‰)	$\pm 1\sigma$	N	7.5-4.5K SST (°C)	$\pm 1\sigma$	N	7.5-4.5k $\delta^{18}\text{Osmow}$ (‰)	$\pm 1\sigma$	N
			E trop. Pac.																	
TR163-19 <sup>1</sup>	2.26	-90.95	-2.17	0.14	2	25.5	0.4	2	-0.03	$\pm 0.22$	2	-2.21	0.17	3	26.0	0.2	3	0.04	$\pm 0.18$	3
V21-30(G. sacc.) <sup>2</sup>	-1.22	-89.68	-1.58	0.08	6	22.3	0.4	6	-0.00	$\pm 0.14$	6	-1.30	0.14	9	21.8	0.2	10	0.17	$\pm 0.14$	10
V21-30 <sup>3</sup>	-1.22	-89.68	-1.77	0.11	7	23.4	0.6	7	0.03	$\pm 0.14$	7	-1.59	0.13	13	23.0	0.3	15	0.11	$\pm 0.16$	13
TR163-22 <sup>4</sup>	0.515	-92.4	-1.47	0.14	5	24.4	0.1	5	0.44	$\pm 0.21$	5	-1.59	0.22	8	24.1	0.1	8	0.28	$\pm 0.20$	8
			W. trop. Pac.																	
MD98-2181 <sup>5</sup>	6.3	125.83	-2.78	0.20	96	29.0	0.6	80	0.04	$\pm 0.20$	67	-2.64	0.18	45	29.6	0.4	55	0.37	$\pm 0.17$	52
MD98-2176 <sup>5</sup>	-5	124	-2.73	0.14	74	28.9	0.6	75	0.08	$\pm 0.2$	74	-2.56	0.12	57	29.3	0.5	59	0.37	$\pm 0.13$	55
MD98-2170 <sup>5</sup>	-11	134	-2.85	0.11	14	29.4	0.2	13	0.17	$\pm 0.06$	13	-2.80	0.12	6	29.5	0.4	8	0.11	$\pm 0.12$	7
MD98-2162 <sup>6</sup>	-4.69	117.9	-3.19	0.17	7	29.1	0.3	7	-0.29	$\pm 0.20$	7	-3.23	0.28	7	29.2	0.5	7	-0.32	$\pm 0.32$	7
			NW Pacific																	
A7 <sup>7</sup>	27.82	126.98	-2.31	0.14	21	26.6	0.6	21	0.07	$\pm 0.17$	21	-2.02	0.31	21	26.1	0.6	21	0.25	$\pm 0.26$	21

<sup>1</sup>Lea et al., 2000; Spero and Lea, 2003; <sup>2</sup>Koutavas et al., 2002; <sup>3</sup>Koutavas, et al. 2006, <sup>4</sup>Lea et al., 2006, <sup>5</sup>Stott et al., 2004, <sup>6</sup>Visser et al, 2003, <sup>7</sup>Sun et al., 2005

REFERENCES:

- Koutavas, A, P. B. deMenocal, G. C. Olive, and J. Lynch-Stieglitz J. (2006), Mid-Holocene El Niño–Southern Oscillation (ENSO) attenuation revealed by individual foraminifera in eastern tropical Pacific sediments, *Geology*, 34, 993–996.
- Koutavas, A., J. Lynch-Stieglitz, T. M. Marchitto, and J. P. Sachs Jr. (2002), El Niño-like pattern in ice age tropical Pacific sea surface temperature, *Science*, 297, 226– 230.
- Lea D. W., D. K. Pak., and H. J. Spero (2000), Climate impact of late Quaternary equatorial Pacific sea surface temperature variations, *Science*, 289, 1719-1724.
- Lea, D. W., D. K. Pak, C. L. Belanger, H. J. Spero, M. A. Hall, and N. J. Shackleton (2006), Paleoclimate history of Galápagos surface waters over the last 135,000 years, *Quat. Sci. Rev.*, 25, 1152–1167.
- Spero, H. J. and D. W. Lea (2003), The cause of carbon isotope minimum events on glacial terminations, *Science*, 296, 522–525.
- Stott, L., K. Cannariato, R. Thunell, G. Haug, A. Koutavas, and S. Lund (2004), Decline of surface temperature and salinity in the western tropical Pacific Ocean in the Holocene epoch, *Nature*, 431, 56–59.
- Sun, Y., D. W. Oppo, R. Xiang, W. Liu, W. and S. Gao (2005), The last deglaciation in the Okinawa Trough: subtropical northwest Pacific link to northern and tropical climate, *Paleoceanography*, 20 PA4005, doi:10.1029/2004PA001061.
- Visser, K., R. Thunell, R. and L. Stott (2003), Magnitude and timing of temperature change in the Indo-Pacific warm pool during deglaciation, *Nature*, 412, 152–155.