PALEO-PROXIES FOR THE THERMOCLINE AND LYSOCLINE OVER THE LAST GLACIAL CYCLE IN THE WESTERN TROPICAL PACIFIC

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PALEO-PROXIES FOR THE THERMOCLINE AND LYSOCLINE OVER THE LAST GLACIAL CYCLE IN THE WESTERN TROPICAL PACIFIC

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

SUMMARY

The shape of the thermocline and the depth of the lysoline in the western tropical Pacific are both influenced by the overlying atmosphere, and both the shape of thermocline and the depth of the lysocline can be reconstructed from foraminifera-based paleo-proxies. Paleoclimate proxy evidence suggests a southward shift of the Intertropical Convergence Zone (ITCZ) during times of Northern Hemisphere cooling, including the Last Glacial Maximum (LGM), 19-23 ka before present. However, evidence for movement over the Pacific has mainly been limited to precipitation reconstructions near the continents, and the position of the Pacific marine ITCZ is less well constrained. In this study, I address this problem by taking advantage of the fact that the upper ocean density structure reflects the overlying wind field. I reconstruct changes in the upper ocean density structure during the LGM using oxygen isotope measurements on the planktonic foraminifera *G. ruber* and *G. tumida* in a transect of sediment cores from the Western Tropical Pacific. The data suggest a ridge in the thermocline just north of the present-day ITCZ persists for at least part of the LGM, and a structure in the Southern Hemisphere that differs from today. The reconstructed structure is consistent with that produced in a General Circulation Model with both a Northern and Southern Hemisphere ITCZ. I also attempt to reconstruct the upper ocean density structure for Marine Isotope Stages 5e and 6, the interglacial and glacial periods, respectively, previous to the LGM. The data show a Northern Hemisphere thermocline ridge for both of these periods. There is insufficient data to draw any conclusions about the Southern Hemisphere thermocline.

Using the same set of sediment cores, I also attempt to reconstruct lysocline depth over the last 23,000 years using benthic foraminiferal carbon isotope ratios, planktonic foraminiferal masses, and sediment coarse fraction percentage. Paleoclimate proxy evidence and modeling studies suggest that the deglaciation following the LGM is associated with a deepening of the lysocline and an increase in sedimentary calcite preservation. Although my data lack the resolution to constrain the depth of the lysocline, they do show an increase in calcite preservation during the last deglaciation, consistent with lysocline deepening as carbon moves from the deep ocean to the atmosphere.

CHAPTER 1

WESTERN PACIFIC THERMOCLINE STRUCTURE AND THE PACIFIC MARINE INTERTROPICAL CONVERGENCE ZONE DURING THE LAST GLACIAL MAXIMUM

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1.1 Introduction

The Intertropical Convergence Zone (ITCZ) is a zonal band of convection and precipitation in the tropics which occurs where the northeasterly and southeasterly trade winds meet, with a current average position at approximately 10°N over the oceans (Figure 1a, 2a). Paleoclimate proxy data and modeling studies support a southward shift of the ITCZ during periods of cooler Northern Hemisphere. However, the exact position of the ITCZ during these periods is not well constrained over the tropical Pacific.

The off-equatorial position of the ITCZ is determined by a balance between heat inputs from the ocean surface and the vorticity field which drives convergence (Tomas et al., 1999; Tomas and Webster, 1997; 1994). Once off the equator, there are several positive feedbacks which maintain this asymmetrical (with respect to the equator) convergence (Giese and Carton, 1994; Lin et al., 2008; Xie, 1994). In the tropics, the shapes of the continents cause cross-equatorial pressure gradients which lead to a Northern Hemisphere ITCZ (Mitchell and Wallace, 1992; Philander et al., 1996; Tomas et al., 1999; Tomas and Webster, 1997), although since the ITCZ demonstrates a seasonal migration southwards during the boreal winter (Hu et al., 2007; Xian and Miller, 2008), continental configuration can not be the only contributor to ITCZ position.

In addition to the current Northern Hemisphere ITCZ in the Western Tropical Pacific, there is also an area of convection south of the equator, the South Pacific Convection Zone (SPCZ). The SPCZ, rather than being largely zonal like the ITCZ, is

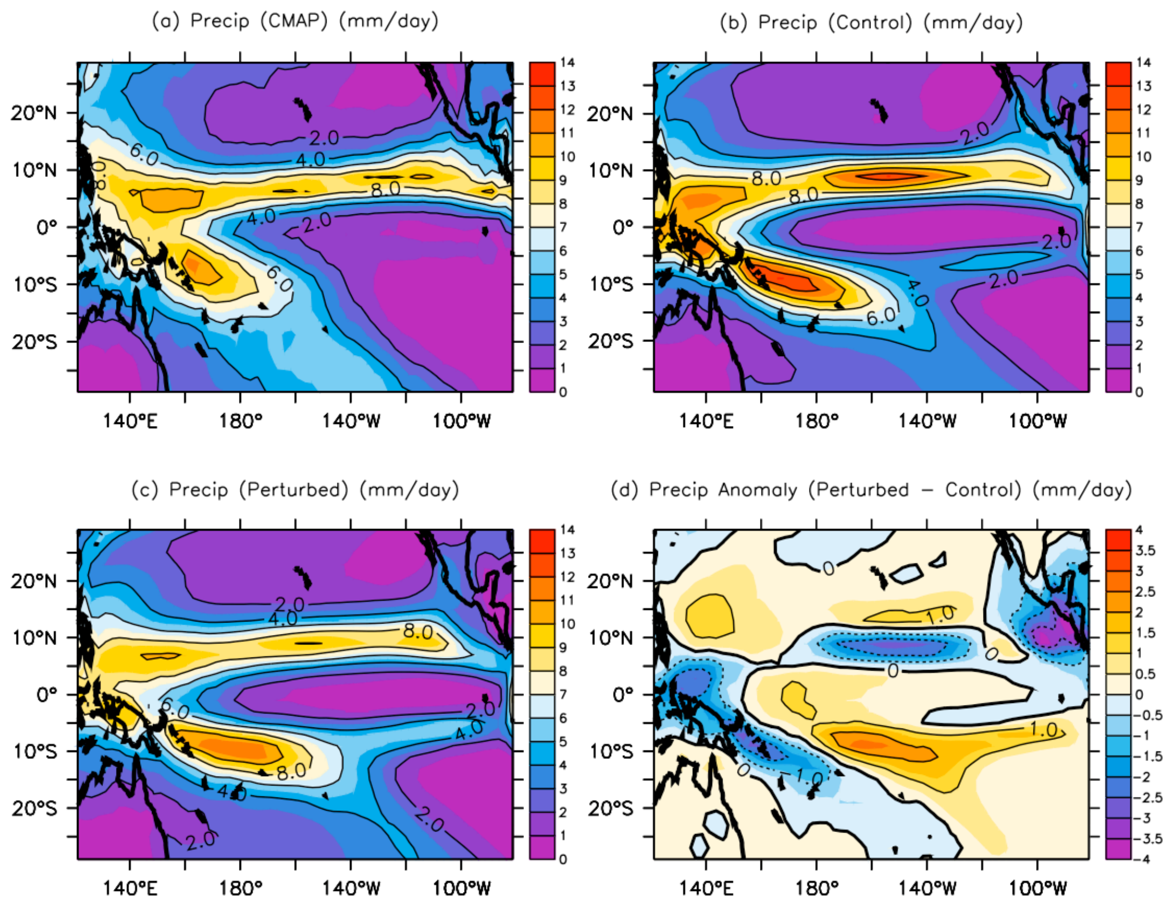


Figure 1: Annual mean precipitation (mm/day) over the tropical Pacific (a) CMAP observed climatology (Xie and Arkin, 1997). (b) 40-year average from GFDL’s CM2.0 model control experiment as described in Zhang and Delworth (2005). (c) 40-year average from GFDL’s CM2.0 model perturbed experiment with imposed anomalous freshwater flux over the northern North Atlantic as described in Zhang and Delworth (2005). (d) Difference in precipitation between (c) and (b).

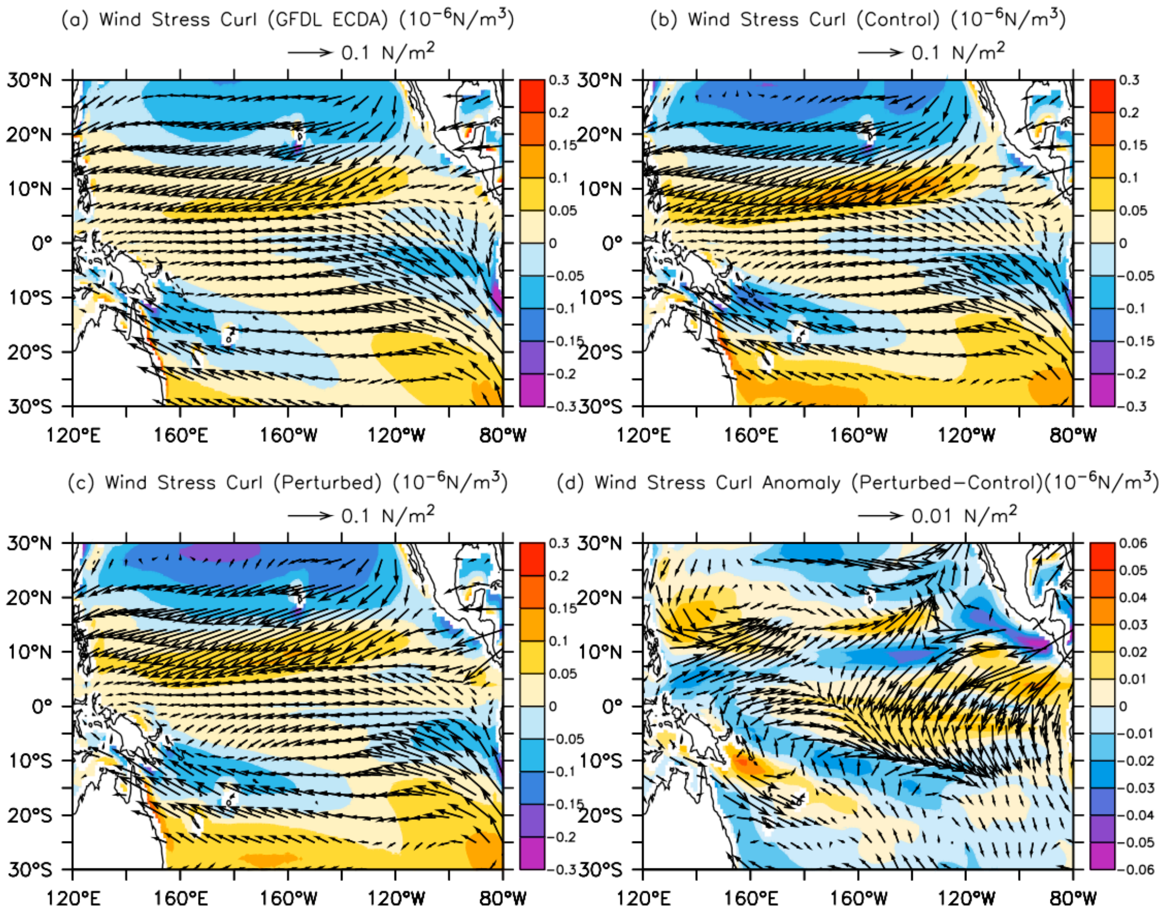


Figure 2: Annual mean wind stress over the tropical Pacific. Contours are wind stress curl (10^{-6}N/m^3), arrows denote wind stress (N/m^2) (a) Observed climatology over the tropical Pacific (from GFDL ensemble coupled data assimilation (ECDA) system for the period 1960-2000, Chang et al. (2012)). (b) 40-year average from GFDL's CM2.0 model control experiment as described in Zhang and Delworth (2005). (c) 40-year average from GFDL's CM2.0 model perturbed experiment with imposed anomalous freshwater flux over the northern North Atlantic as described in Zhang and Delworth (2005). (d) Difference between (c) and (b).

arranged diagonally, stretching south-eastward from New Guinea to approximately 30°S 120°W (Vincent, 1994). The location and orientation of the SPCZ are highly sensitive to zonal sea surface temperature gradients in the tropical and southern subtropical Pacific (Widlansky et al., 2011). In the eastern and central tropical Pacific, there is evidence for a true double ITCZ during the boreal spring (Hubert et al., 1969; Liu and Xie, 2002; Zhang, 2001), although the Southern Hemisphere ITCZ is weaker than the Northern Hemisphere ITCZ and may have different underlying dynamics (Liu and Xie, 2002).

1.1.1 LGM ITCZ inferences from paleo-climate data

Several factors make the interpretation of LGM proxy data for the tropical Pacific difficult. Not all proxy data may be of the same quality (Waelbroeck et al., 2009). Paleo-data collection may be biased towards the Northern Hemisphere, making it difficult to make precise and large-scale interpretations (Stager et al., 2011). Since the *position* and *amount* of maximum rainfall may be sensitive to separate climate drivers (Chiang et al., 2002; Schmidt and Spero, 2011), reconstructions based on geographically limited data are difficult to interpret. Furthermore, high latitude, land-based reconstructions may be affected by changes in the monsoons which do not reflect the condition of the marine ITCZ (Nicholson, 2009). Despite these difficulties several studies have been published which are consistent with a southward shift of the ITCZ, and latitudinal shifts of the ITCZ during the LGM and last termination seem to be generally accepted (Denton et al., 2010). For example, studies of the Caribbean and west tropical Pacific based on foraminiferal Mg/Ca ratios and $\delta^{18}O$ imply a more southerly LGM ITCZ, although without giving a specific position (Schmidt and Spero, 2011; Schmidt et al., 2006). (Pahnke et al., 2007) used alkenone δD as a hydrology proxy to infer a more southerly ITCZ in the eastern Pacific during the LGM. Furthermore, in the eastern tropical Pacific, reconstructions of the surface ocean based on foraminiferal $\delta^{18}O$ and Mg/Ca ratios have shown a decrease in cross-equatorial temperature gradients during the LGM (Koutavas and Lynch-Stieglitz, 2003, 2005; Koutavas et al., 2002) Since ITCZ position is very sensitive to meridional temperature gradients in the tropics (Chiang et al., 2002), this decrease in temperature gradient implies a more southerly ITCZ during the LGM, although, again, without predicting a specific position. Dubois et al. (2009) uses the $U^{K'}_{37}$ alkenone proxy to reconstruct an increased LGM cross-equatorial temperature gradient in the eastern equatorial Pacific. However, that study argues that the gradient is consistent with a more southerly-shifted LGM ITCZ. Since none of these reconstructions predict a specific southern position for the LGM ITCZ, they fail to make the distinction between a more southerly ITCZ which remains in the Northern Hemisphere, and an LGM ITCZ which shifts entirely into the Southern Hemisphere.

1.1.2 Model Studies of the LGM ITCZ

Models of the Western Tropical Pacific often exaggerate the extent and zonal direction of the SPCZ, leading to a "double ITCZ", especially in the western Pacific (Zhang et al., 2007). Despite this, several modeling studies have attempted to assess changes to the Pacific ITCZ in response to LGM boundary conditions. The Paleoclimate Modeling Intercomparison Project (PMIP2) has compared the response of several climate models to LGM boundary conditions. In aggregate, the models suggest very little change in the position of the precipitation maximum associated with the ITCZ in the western Pacific during the LGM. Individually, the models give a spread of responses: some show an LGM precipitation maximum to the north, and some to the south of the current ITCZ position (Braconnot et al., 2007). On the other hand, other studies have shown a robust shift to a Southern Hemisphere position in response to imposition of boundary conditions associated with the LGM. In one study, increased Northern Hemisphere ice coverage caused precipitation immediately north of the equator in the Pacific to decrease to almost zero, while increasing by an equal amount immediately south of the equator, implying a shift to the Southern Hemisphere of the ITCZ (Chiang and Bitz, 2005). In other studies, reduced Atlantic meridional overturning produced similar results (Broccoli et al., 2006; Menviel et al., 2008). Taken together, these studies suggest that the tropical climate is sensitive to distinct components of the high latitude glacial boundary conditions, and also that a shift of the ITCZ entirely into the Southern Hemisphere is possible.

1.1.3 Relationship between the thermocline structure and the Pacific Marine ITCZ

The wind field in the tropical Pacific results in a circulation and thermocline structure largely described by Sverdrup dynamics (Kessler et al., 2003; Landsteiner et al., 1990; Munk, 1950; Sverdrup, 1947). North of the equator in the Pacific, the wind stress curl reaches a maximum value just north of the ITCZ where weak zonal winds at the convergence itself transition to stronger easterly winds to the north.

The geostrophic part of the Sverdrup transport can be calculated by combining the Sverdrup relation with Ekman transport. This can then be integrated to derive an equation for the Sverdrup pressure, the pressure field that supports the geostrophic part of the Sverdrup transport. The vertically integrated Sverdrup pressure equation is given in (Landsteiner et al., 1990):

$$P = -\int_x^0 \left[\frac{f}{\beta} \mathrm{curl}_z \tau + \tau^x \right] dx + P(0)$$

where $P(0)$ is the vertically integrated pressure at the eastern boundary ($x = 0$), f is the Coriolis parameter, β is the meridional gradient of the Coriolis parameter, τ is the surface wind stress vector, which has meridional component τ^x. The Sverdrup pressure calculated in this way from observed wind stress mirrors the thermocline structure in the Tropical Pacific, with high pressure where the thermocline is deep and low pressure where the thermocline is shallow and nicely shows the thermocline ridge (Figure 3). The pattern in Sverdrup pressure is determined by two components of the wind field: the zonal wind stress (which is easterly over the tropical Pacific and produces a tilt of the thermocline downward to the west); and the wind stress curl which varies and will tend to

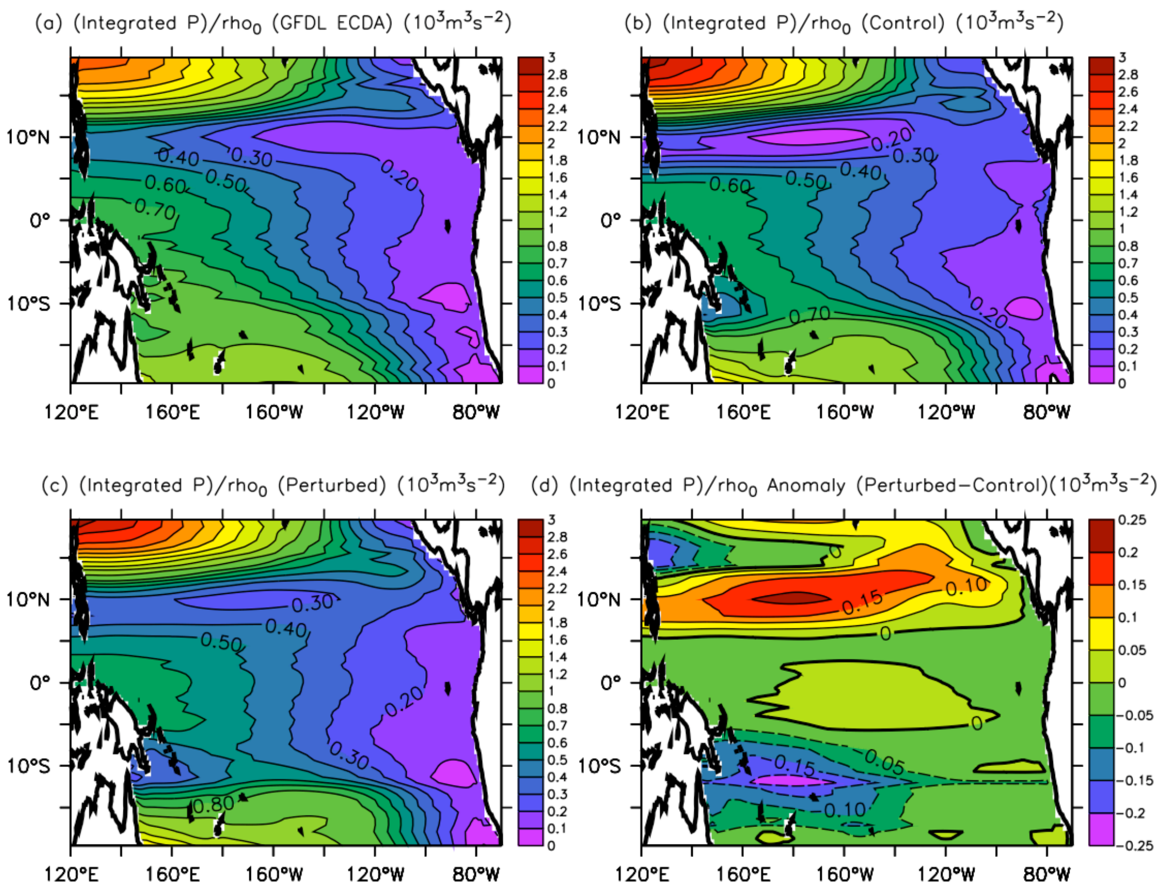


Figure 3: Annual mean Integrated Pressure/ρ_0 calculated over the tropical Pacific (the Integrated Pressure is calculated using the equation in Section 1.3 (10^3 m^3s^{-2}) using (a) observed climatological wind over the tropical Pacific (from GFDL ECDA, Chang et al. 2012). (b) 40-year averaged wind field from GFDL's CM2.0 model control experiment as described in Zhang and Delworth (2005). (c) 40-year averaged wind field from GFDL's CM2.0 model perturbed experiment with imposed anomalous freshwater flux over the northern North Atlantic as described in Zhang and Delworth (2005). (d) Difference between (c) and (b).

raise the thermocline where the wind field is divergent and deepen the thermocline where it is convergent. Since the equation for Sverdrup pressure integrates from east to west, the pressure in the Western Tropical Pacific is a function not only of local conditions, but also of all conditions to the east. While the meridional component of the surface wind stress is relatively uniform across the basin, thus integrating across the basin to produce the general east-west tilt of the thermocline, the curl term of the equation varies across the basin. This means that, while local wind stress curl plays a part in determining the Sverdrup pressure of the western Pacific, the local Sverdrup pressure, and thus thermocline depth, is also dependent upon conditions across the entire Pacific.

These processes explain the asymmetry across the equator in the thermocline depth in the Western Tropical Pacific. The basin-wide ITCZ in the Northern Hemisphere is associated with a band of positive (divergent in the Northern Hemisphere) wind stress curl across the Pacific (Figure 2a), which amplifies and strengthens the west Pacific Northern Hemisphere ridge at approximately 8°N (Figure 4a). There is a much smaller ridge visible in the Southern Hemisphere at about 12°S in the Southern Hemisphere (Figure 4a). This much smaller ridge is caused by negative wind stress curl (divergent in the Southern Hemisphere) in the western Pacific south of the equator. However, since there is a large area of positive (convergent) wind stress curl in the central Pacific at the same latitude), the ridge is much weaker than the one in the Northern Hemisphere.

Because it is the zonally coherent band of divergent wind stress curl just north of the ITCZ which produces a pronounced Northern Hemisphere thermocline ridge in the

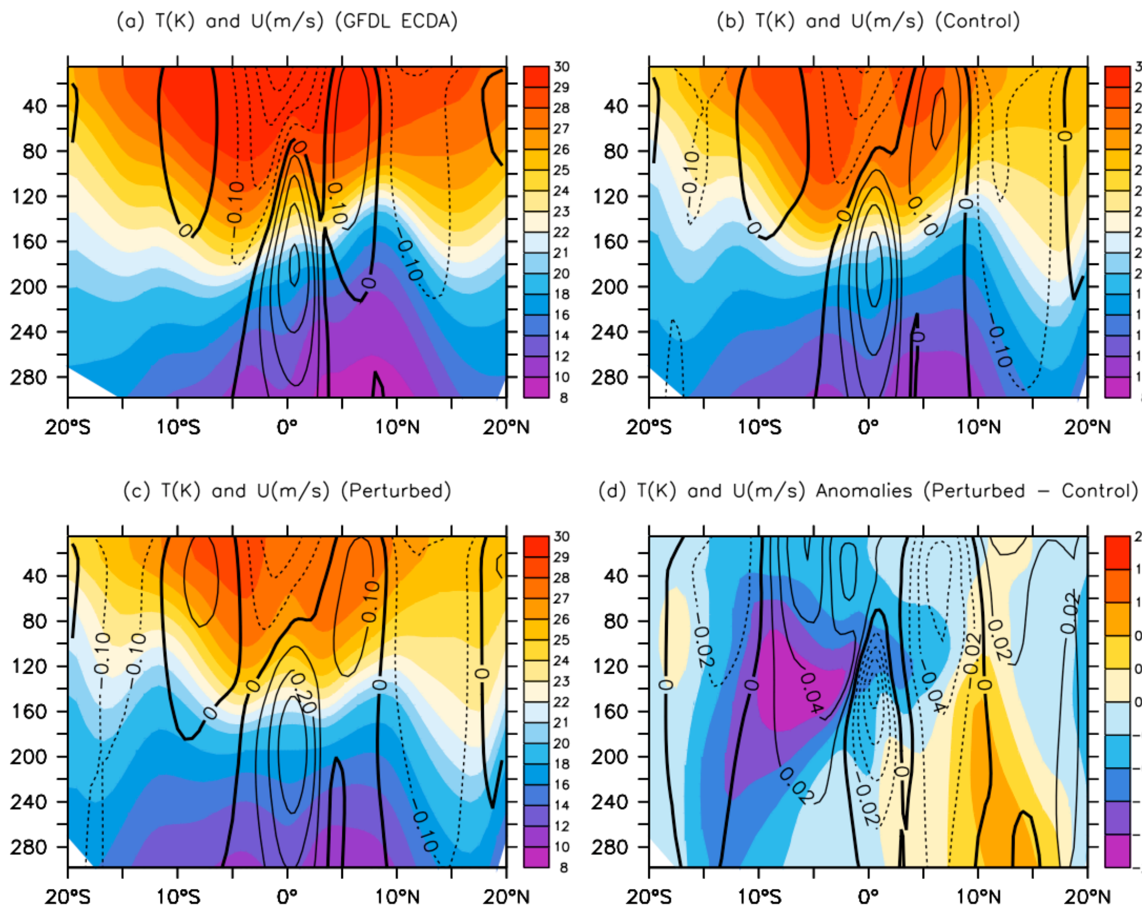


Figure 4: Annual mean vertical ocean profile from 0-300 m along 160°E. Colors represent temperature (°C). Contours are zonal flow (m/s) (contour interval is 0.02m/s). (a) Observed profile (from GFDL ECDA, Chang et al. 2012). (b) 40-year average from GFDL's CM2.0 model control run as described in Zhang and Delworth (2005). (c) 40-year average from GFDL's CM2.0 model perturbed experiment with imposed anomalous freshwater flux over the northern North Atlantic as described in Zhang and Delworth (2005). (d) Difference between (c) and (b).

Western Tropical Pacific, we therefore expect that if the ITCZ moves north or south, then the thermocline ridge will also move north or south. Furthermore, if a well-developed, zonal ITCZ occurs in the Southern Hemisphere, then a pronounced thermocline ridge will occur in the Southern Hemisphere.

This hypothesis is supported by at least two model studies. (Zhang et al., 2007) show that in three coupled ocean-atmosphere general circulation models (CCSM2, CCSM3, and FGCM1), an erroneous double ITCZ in the Pacific (Figures 1 and 2 of Zhang et al. (2007)) results in a thermocline ridge south of the equator. The double ridge produced in the central and western Pacific in each model is visible in Figure 3 of Zhang et al. (2007). In the model experiments in Zhang and Delworth (2005) a weakening of the Atlantic Meridional Overturning Circulation in response to freshwater input to the North Atlantic enhances the Southern Hemisphere Pacific ITCZ and weakens the Northern Hemisphere ITCZ, again in a model that tends to show a double ITCZ in the control run (Figures 1 and 2). The control run shows a double ridge, associated with the double ITCZ, but with a slightly weaker Southern Hemisphere ridge reflecting the less zonal structure of the Southern Hemisphere ITCZ. In the perturbed run, the enhanced Southern Hemisphere ITCZ is associated with more consistent negative wind stress curl across the basin, and therefore a stronger Southern Hemisphere thermocline ridge (Figures 3, 4).

1.1.4 Reconstructing thermocline structure from planktonic foraminifera

The isotopic composition of the calcite test of a foraminifer is dependent upon both the temperature of calcification and the isotopic composition of the seawater in which it calcifies. Seawater oxygen isotope ratio ($\delta^{18}O$) varies with changes in whole earth ice volume, and with the local differences in evaporation and precipitation, which also affect local salinity. At a given time in the past, the changes to whole earth ice volume affect all locations equally, which means that variability in foraminiferal $\delta^{18}O$ is related to the temperature and salinity of the seawater. In general, as seawater temperature decreases from the surface through the thermocline in the tropical Pacific, the isotopic composition of foraminifera calcifying in these waters increases. More generally, in the upper ocean, higher $\delta^{18}O$ values correspond to higher seawater potential density because both quantities increase with decreasing temperature and increasing salinity. By analyzing the isotopic composition of species of planktonic foraminifera that calcify in the surface mixed layer, and those that calcify deeper in the water column, the thermocline depth and upper ocean stratification can be reconstructed (Cannariato and Ravelo, 1997; Farmer et al., 2007; Rincon-Martinez et al., 2011; Sagawa et al., 2012; Steph et al., 2009).

In this paper, we aim to reconstruct the structure of the LGM thermocline in the Western Tropical Pacific using $\delta^{18}O$ values of the calcite shells of the species *Globigerinoides ruber*, which calcifies in the surface mixed layer, and *Globorotalia tumida* which calcifies deeper in the water column. The thermocline ridge is associated with colder waters at the calcification depth of *G. tumida,* and we expect to see both higher *G. tumida* $\delta^{18}O$ values and an increased gradient in $\delta^{18}O$ between *G. tumida* and *G. ruber* at the location of the thermocline ridge. This reconstruction of thermocline structure will place constraints on the position of the LGM ITCZ.

1.2 Methods

1.2.1 Core Selection

In order to reconstruct the LGM thermocline structure, and therefore constrain the position of the LGM ITCZ, we studied 15 sediment cores from positions which transect the equator in the western Pacific (Figure 5). The transect extends to a position north of the current Northern Hemisphere thermocline ridge, and a similar distance to the south.

Most cores are from an ocean depth of less that 3000 m, since dissolution increases rapidly below this depth in the Western Tropical Pacific (Berger et al., 1982). However, due to the depth of the ocean and low sedimentation rates in this area, we also used some cores from between 3000 and 4000 m water depth, provided that their *G. ruber* $\delta^{18}O$ stratigraphy appeared to differentiate the LGM and Holocene sections of the core (Supplemental Figure 1).

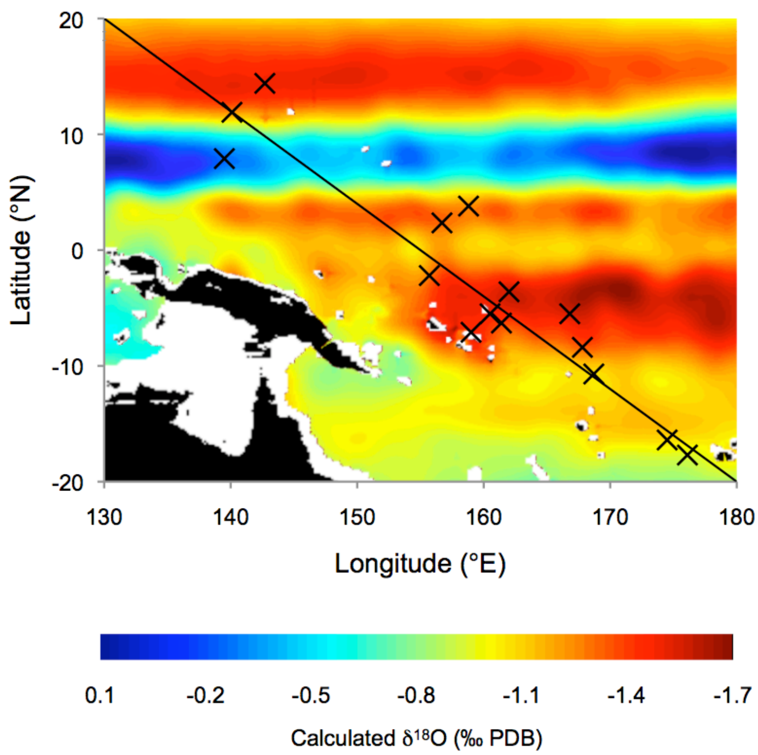


Figure 5: Positions of sediment cores (crosses). Colors indicate predicted $\delta^{18}O$ values at 150 m depth. Predicted $\delta^{18}O$ values are calculated from observed values for temperature (Locarnini et al., 2010) and salinity (Antonov et al., 2010) using the equation derived in section 2.4. The solid line represents the position of the transect of calculated equilibrium calcite $\delta^{18}O$ values which were used for comparison to sedimentary calcite $\delta^{18}O$ values. Since the predicted calcite $\delta^{18}O$ are sensitive to temperature changes, variations in predicted calcite $\delta^{18}O$ at this depth are largely driven by changes in thermocline depth.

1.2.2 Oxygen Isotope Analyses on Foraminifera

From each sediment core, samples of approximately 3 g of dry sediment were taken every 4 cm, to a depth of at least 2 m. The dry material was soaked in deionized water overnight, then washed with deionized water over a 63 μm sieve, and dried for at least eight hours at 70ºC. Whole, clean *G. ruber* were picked from the 250-355μm size fraction and whole, clean *Globorotalia tumida* from the 425-500μm size fraction.

Foraminifera were analyzed for $\delta^{18}O$ on a MAT253 mass spectrometer with Delta IV carbonate device. $\delta^{18}O$ values are reported relative to Pee Dee Belemnite (PDB), via a house standard and NBS 19. Long-term results showed a standard deviation of < 0.06‰ for $\delta^{18}O$ and <0.04‰ for $\delta^{13}C$. *G. tumida* were analyzed singly, *G. ruber* were analyzed in groups of ten. The size range chosen gave sufficient *G. tumida* with a narrow weight range (approximately 100-150 μg per test). The number of *G. tumida* tests analyzed was chosen to bring the standard error of the mean calculated for each time slice below a value of 0.2.

1.2.3 Dating and Time Slices

Radiocarbon ages were determined on *G. tumida* (> 250 μm) from selected intervals in the cores at the National Ocean Sciences Accelerator Mass Spectrometry facility (Table 1). Each sample contained a minimum of eight tests from a single interval, lightly crushed and mixed. Radiocarbon ages were corrected using the Calib 6.0.0 program (Stuiver and Reimer, 1993) and the Marine09.14c dataset (Reimer et al., 2009). We chose to use a standard marine reservoir value of 400 years for our calibration, since the modern reservoir value for the tropical Pacific is close to 400 years

Table 1: Radiocarbon dates for sediment cores.

Core	Core depth (cm)	Radiocarbon date (yr BP)	Error	Calibrated date (yr BP)	Species	Date Reported (YYYYMMDD)
VM28-246	8	17500	70	20292	G. tumida	20101217
VM28-246	12	19700	120	22930	G. tumida	20100816
VM28-246	20	28400	140	32109	G. tumida	20100316
VM28-246	24	31000	160	34992	G. tumida	20101217
VM19-110	4	3040	30	2799	G. tumida	20110429
VM19-110	16	13350	55	15405	G. tumida	20101217
VM19-110	36	28500	130	32282	G. tumida	20110429
GGC-49	1	2620	30	2309	G. tumida	20110429
GGC-49	15	17700	60	20440	G. tumida	20110108
GGC-49	23	23700	90	28095	G. tumida	20110108
RC17-176	0	5110	50	5496	G. tumida	20100816
RC17-176	15	9220	65	10043	G. tumida	20100816
RC17-176	30	25100	110	29501	G. tumida	20100316
VM24-110	4	4970	40	5317	G. tumida	20110504
VM24-110	12	7520	40	7971	G. tumida	20101221
VM24-110	28	22700	95	26804	G. tumida	20101217
VM24-150	4	2520	35	2200	G. tumida	20110504
VM24-150	32	16150	100	18843	G. tumida	20100816
VM24-150	44	19750	85	23138	G. tumida	20100316
VM28-236	4	4470	35	4654	G. tumida	20110504
VM28-236	12	14500	110	17103	G. tumida	20100813
VM28-236	32	24100	140	28400	G. tumida	20100316

Table 1 (*continued*).

Core	Core depth (cm)	Radiocarbon date (yr BP)	Error	Calibrated date (yr BP)	Species	Date Reported (YYYYMMDD)
VM28-235	28	17300	70	20093	G. tumida	20101217
VM28-235	40	23300	100	27758	G. tumida	20101217
VM28-230	5	6740	70	7272	G. tumida	20100816
VM28-230	20	17000	90	19712	G. tumida	20100816
VM28-230	40	27500	130	31334	G. tumida	20100316
VM28-233	1	2270	35	1875	G. tumida	20110504
VM28-233	28	15800	85	18642	G. tumida	20101217
VM28-233	48	22600	150	26575	G. tumida	20101217
VM28-234	0	1840	30	1369	G. tumida	20110504
VM28-234	86	13150	55	15080	G. sacculifer	20110108
VM28-234	106	15350	85	18378	G. tumida	20110504
VM28-234	110	14900	75	17683	G. sacculifer/G. ruber	20110108
VM28-234	118	16400	95	19166	G. tumida	20110504
VM28-234	180	20800	210	24247	G. tumida	20110504
VM28-229	0	4520	40	4740	G. tumida	20110429
VM28-229	16	8020	50	8473	G. tumida	20101217
VM28-229	30	20200	85	23646	G. tumida	20101217
VM28-227	0	4710	45	4924	G. tumida	20110429
VM28-227	28	17350	85	20166	G. tumida	20110429

Table 1 (*continued*).

Core	Core depth (cm)	Radiocarbon date (yr BP)	Error	Calibrated date (yr BP)	Species	Date Reported (YYYYMMDD)
VM28-227	40	25800	130	30312	G. tumida	20110429
VM28-213	8	17350	70	20172	G. tumida	20101217
VM28-213	20	20500	80	24020	G. tumida	20101217
VM34-2	28	18050	70	21156	G. tumida	20101217
VM34-2	44	25200	120	29630	G. tumida	20101217

(Reimer and Reimer, 2001). It should be noted that this reservoir value is based solely on data for the top 75 m of the ocean, and that our samples calcified at approximately 150 – 200 m, where the reservoir age may be slightly older. However, we assume that this difference is likely not to exceed a century and therefore assume that dating errors due to the reservoir value will be negligible compared to errors introduced by our low sedimentation rates and bioturbation. For all cores, the shallowest core interval was dated. In order to select the intervals for radiocarbon dating the LGM, we first assumed that the maximum in *G. ruber* $\delta^{18}O$ occurred at or around the LGM. *G. tumida* tests were then selected for dating from intervals on either side of this position. The age of other intervals in the sediment cores were determined by assuming constant sediment accumulation rates between the radiocarbon-dated intervals. We constructed Late Holocene (0-4 ka before present) and LGM (19-23 ka before present) time slices by averaging the *G. tumida* and *G. ruber* data from these intervals (Table 2), with one exception. In the case of VM28-246, we chose to use the maximum *G. ruber* $\delta^{18}O$ value, since it was clear to us that the radiocarbon dated LGM interval was capturing Holocene-aged *G. ruber* tests (Supplementary Figure 1a). These averages contain between 10 and 79 measurements on individual *G. tumida*, and between 1 and 22 measurements on groups of 10 *G ruber*, depending on the sedimentation rate and sampling interval. The standard error of the mean *G. tumida* value is computed and reported in Table 2 as well.

Table 2: Location and oxygen isotope data for sediment cores

Core	Position	Depth (m)	LGM S.R. (cm/ka)	Holocene $\delta^{18}O$ (‰)	Holocene error	LGM $\delta^{18}O$ (‰)	LGM error
VM28-246	14.4°N 142.7°E	2745	0.87	-	-	-0.14	0.11
VM19-110	11.9°N 140.1°E	3523	1.81	-	-	0.52	0.17
GGC-49	7.9°N 139.5°E	2800	1.1	-0.28	0.12	0.81	0.07
RC17-176	3.8°N 158.8°E	3156	0.77	-	-	0.20	0.07
VM24-110	2.4°N 156.7°E	2613	0.82	-	-	0.20	0.11
VM24-150	2.2°S 155.7°E	1849	2.94	-0.96	0.10	0.25	0.09
VM28-236	3.6°S 162.0°E	2637	1.78	-	-	-0.11	0.13
VM28-235	5.5°S 160.5°E	1746	1.56	-	-	0.26	0.08
VM28-230	5.5°S 166.8°E	2992	1.72	-	-	0.36	0.11
VM28-233	6.3°S 161.4°E	2334	3.46	-0.96	0.06	0.49	0.15
VM28-234	7.1°S 159.0°E	2719	9.16	-1.02	0.04	0.52	0.07
VM28-229	8.4°S 167.8°E	3669	0.92	-	-	0.67	0.09
VM28-227	10.7°S 168.7°E	3634	1.19	-	-	0.73	0.09
VM28-213	14.9°S 176.2°E	2898	3.1	-	-	0.21	0.07
VM34-2	17.7°S 176.1°E	2579	1.89	-	-	0.70	0.06

1.2.4 Predicted isotopic composition from seawater

In order to predict the isotopic composition of foraminiferal calcite precipitated in equilibrium with modern seawater in this region, we first determine the relationship between seawater salinity and $\delta^{18}O$ values. A least squares linear regression was performed on salinity (S) and seawater oxygen isotope values ($\delta^{18}O_{water}$) for the open ocean from 20°N to 20°S and 130°E to 150°W, using data from Schmidt et al. (1999). Since we do not necessarily expect the surface ocean and thermocline to have the same $\delta^{18}O$ to salinity relationship, we made two separate regressions, one from depths between 0 m and 30 m and the other from depths between 120 and 300 m. This yields a relationship of $\delta^{18}O_{water}$ (VSMOW) = $0.312S - 10.47$ for the surface ocean and $\delta^{18}O_{water}$ (VSMOW) = $0.400S - 13.727$ for the thermocline. To relate temperature to calcite $\delta^{18}O$, we used the linear equation $\delta^{18}O_{calcite}$ (PDB) = ($\delta^{18}O_{water}$ (VSMOW) - .27) – $0.20T + 3.25$ from (Lynch-Stieglitz et al., 1999), which is based on inorganic calcite precipitation data from (Kim and O'Neil, 1997), and uses an offset of 0.27‰ to adjust VSMOW to VPDB (Hut, 1987).

Combining these equations yields $\delta^{18}O_{calcite}$ (PDB) = $0.31S - 0.20T - 7.49$ for the surface ocean, and $\delta^{18}O_{calcite}$ (PDB) = $0.40S - 0.20T - 10.75$ for the thermocline.

1.3 Results

1.3.1 Holocene Thermocline Structure

Due to low sedimentation rates in the open Western Tropical Pacific and possible dissolution of Holocene sediments, only seven sediment cores in our study retained material from the late Holocene—one relatively high resolution core in the center of the Northern Hemisphere ridge, one core north of the Northern Hemisphere ridge, and five cores between the equator and 7°S (Table 2). All seven of these cores show agreement between *G. tumida* $\delta^{18}O$ values and mean annual calcite $\delta^{18}O$ values predicted based on World Ocean Atlas data (Antonov et al., 2010; Locarnini et al., 2010), and calcification at 150 – 200 m water depth (Figure 6a), which is also consistent with (Mohtadi et al., 2011). We were able to augment our late Holocene *G. tumida* records with those from other studies (Billups et al., 1999; Faul et al., 2000; Rea et al., 1986; Sagawa et al., 2012) and compare these data from foraminifera to calcite $\delta^{18}O$ predictions for 150 m depth (Figure 6b). The fact that the ratio between observed *G. tumida* $\delta^{18}O$ values and calculated $\delta^{18}O$ values is not one-to-one suggests that the calcification depth is not constant, or that some other factor is affecting *G. tumida* $\delta^{18}O$. However, the strong positive correlation (R^2 = 0.88) suggests that changes in *G. tumida* $\delta^{18}O$ values are reliably indicative of changes in seawater $\delta^{18}O$ values at 150 m. Our late Holocene data show a good match between *G. ruber* – *G. tumida* $\Delta\delta^{18}O$ (the difference between the $\delta^{18}O$ values of the two species) and $\Delta\delta^{18}O$ between the ocean and 0 m depth and 150 m depth. This relationship is based on fewer data, and has a slightly lower correlation (R^2 = 0.73) than the relationship between *G. tumida* $\delta^{18}O$ and 150 m depth calculated equilibrium $\delta^{18}O$. The lower correlation results from the facts that fewer cores have both *G. tumida* and *G. ruber* data for the Late

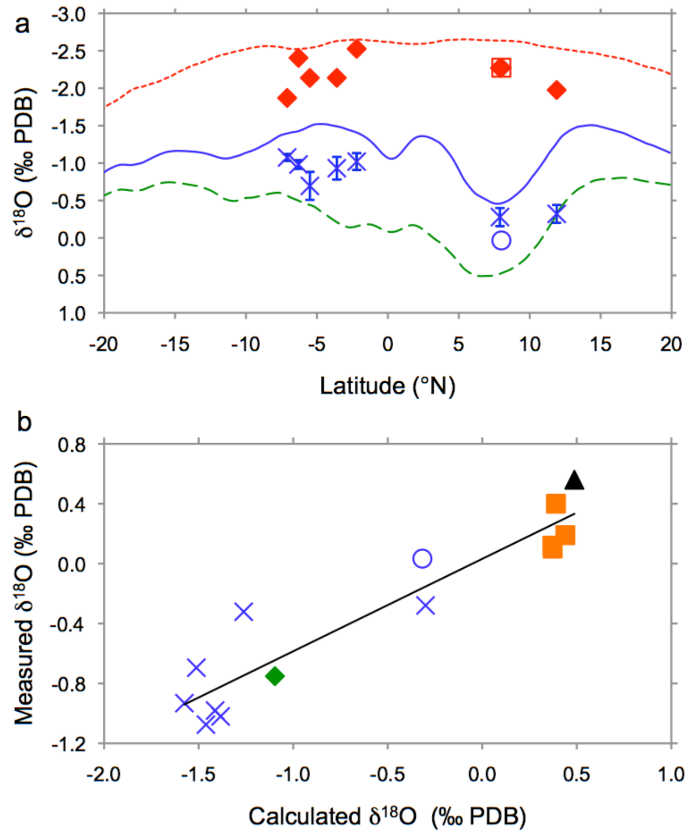


Figure 6: Average measured late Holocene foraminiferal δ^{18}O values compared to calculated expected δ^{18}O equilibrium calcite values, calculated along the transect line shown in Figure 5, at 0, 150, and 200 m depth. (a) Calculated δ^{18}O values at 0 m (red line), 150 m (blue line), and 200 m (green line) and measured late Holocene *G. ruber* (red diamonds) and *G. tumida* (blue crosses) δ^{18}O. Error bars on the *G. tumida* averages represent standard error of the mean. Also shown are the *G ruber* (red square) and *G. tumida* (blue circle) values from Sagawa et al. (2012). (b) Average measured Holocene *G. tumida* δ^{18}O values versus calculated values at 150 m for data from this study (blue crosses); Faul et al. (2000) (orange squares); Billups et al. (1999) (green diamond); Sagawa et al. (2012) (blue circle); and Rea et al. (1986) (black triangle). Trend line is a linear least squares fit: measured calcite δ^{18}O = 0.62(calculated calcite δ^{18}O) – 0.03; R^2 = 0.88. Equations used for calculated calcite δ^{18}O are in Section 2.4 and use salinity and temperature data from 0, 150, and 200 m depth from the World Ocean Atlas (Antonov et al., 2010; Locarnini et al., 2010).

Holocene (our own seven cores and the data from Faul et al. (2000) and Sagawa et al. (2012)), that we have less temporal constraint on our *G. ruber* data, and that the *G. ruber* tests are not as well preserved as the more robust *G. tumida* tests.

1.3.2 LGM Thermocline structure

The LGM *G. tumida* $\delta^{18}O$ values in the Northern Hemisphere are quite similar to the modern observed and predicted values, once we account for the whole ocean oxygen isotope change of about 1‰ (Schrag et al., 1996) (Figure 7a). For the Northern Hemisphere sediment core for which we have both Late Holocene and LGM data (GGC-49 at 7.9°N), there is no significant difference between late Holocene *G. tumida* $\delta^{18}O$ values and LGM *G. tumida* $\delta^{18}O$ values (shifted by -1‰ to account for whole ocean changes) based on a two-tailed Welch's t-test, $p < 0.01$. This implies that the structure of the Northern Hemisphere thermocline does not—within the resolution of our data—change significantly between the LGM and the Holocene.

In the Southern Hemisphere, the *G. tumida – G. ruber* $\Delta\delta^{18}O$ for sediment cores located between 5°S and 11°S is larger during the LGM than the predicted values for the Holocene. This range is approximately the same distance south from the equator as the present day ridge is north from the equator in the Northern Hemisphere. Of the seven cores which have both Holocene and LGM material—two in the Northern Hemisphere, five in the Southern Hemisphere—only those at 6.3°S and 7.1°S show a significant difference between Holocene and LGM – 1‰ values (Welch's one-tailed t-test, $p < 0.01$). The change in $\Delta\delta^{18}O$ associated with this change in *G. tumida* $\delta^{18}O$ suggests that there is

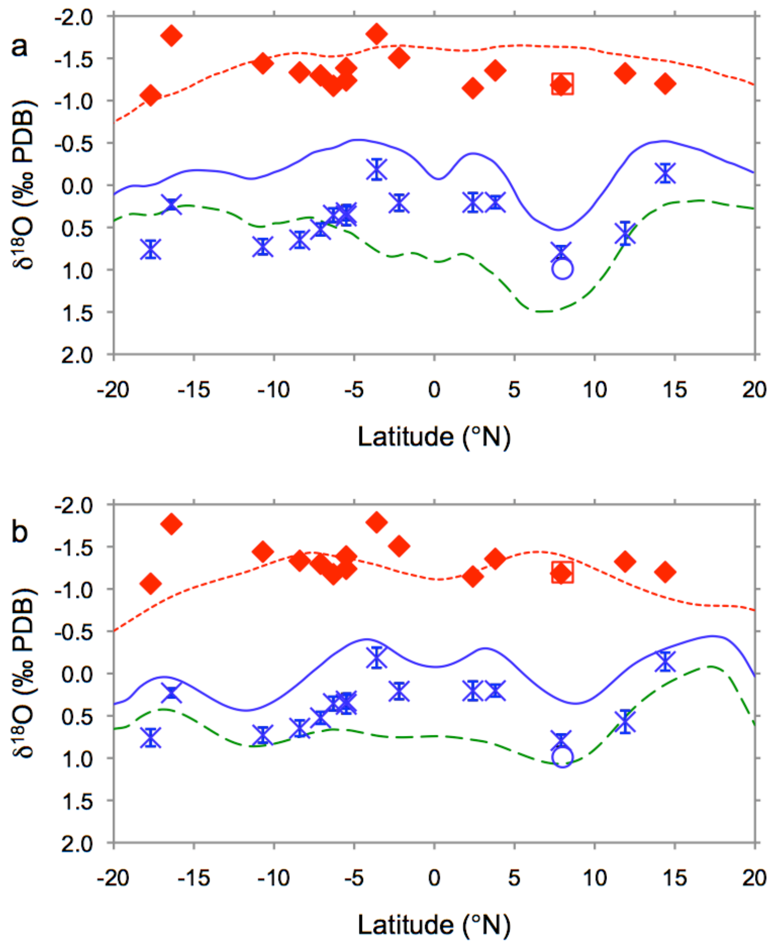


Figure 7: Average measured $\delta^{18}O$ values for LGM *G. ruber* (red diamonds) and *G. tumida* (blue crosses). Error bars for measured $\delta^{18}O$ values represent standard error of the mean, calculated from a minimum of 10 samples. Also shown are the *G. ruber* (red square) and *G. tumida* (blue circle) values from Sagawa et al. (2012). a) LGM data compared to predicted values based on temperature and salinity values from the World Ocean Atlas (Antonov et al., 2010; Locarnini et al., 2010) at 0 m (red line), 150 m (blue line), and 200 m (green line) along the transect in Figure 5 assuming no change in upper ocean structure between the Holocene and LGM. $\delta^{18}O$ values for transects were calculated as in Figure 6, but shifted by +1‰ to account for the glaciation-induced whole ocean water $\delta^{18}O$ change between the Holocene and LGM (Schrag et al., 1996). b) LGM data compared to predicted values based on the response of the GFDL CM2.0 global coupled ocean-atmosphere model to an imposed anomalous freshwater flux into the northern North Atlantic (model and experiment details provided in Zhang and Delworth (2005)). Seawater $\delta^{18}O$ is predicted from model salinity using the same equations as described for the observations in Section 2.4. $\delta^{18}O$ values for modeled transects were shifted by +1‰ to account for the glaciation-induced whole ocean water $\delta^{18}O$ change between the Holocene and LGM (Schrag et al., 1996).

a shoaling of the thermocline, rather than a uniform cooling of the upper ocean in the Southern Hemisphere

1.4 Discussion

1.4.1 Relationship between LGM thermocline ridges and ITCZ

Since the ridge in the Northern Hemisphere thermocline is dynamically linked to the position of the ITCZ, and there is data consistent with a similar ridge during the LGM, the simplest conclusion is that, like today, there was a Northern Hemisphere ITCZ over the tropical Pacific during the LGM between 4°N and 12°N. Our data also suggest a shoaling in the thermocline in the Southern Hemisphere between 5°S and 11°S, implying a zonal band of upper ocean divergence across the ocean basin at this latitude for at least part of the LGM. While there are different ways to produce the shoaling in the thermocline that we observe in the Southern Hemisphere, the pattern of wind stress curl expected for a Southern Hemisphere ITCZ, or a more zonal SPCZ, would produce such a ridge in the thermocline as discussed in Section 1.3. When we compare our LGM *G. tumida* $\delta^{18}O$ transect to the values predicted for the model experiment in Zhang and Delworth (2005) which shows a double ITCZ with a strong Southern Hemisphere ridge, we find a reasonable fit (Figure 7b). This is not to say that the mechanism driving the ITCZ shift in the model (freshwater hosing in the North Atlantic) is driving the observed LGM structure, but simply that the LGM data are consistent with the wind stress field exhibited by this model run which includes a double ITCZ. It is interesting to note that the coupled climate model experiments driven by LGM boundary conditions that were analyzed by diNezio et al. (2011) do not show consistent changes in the thermocline structure in the Western Pacific, and that the changes seen are generally quite subtle compared to the experiment from Zhang and Delworth (2005) that we show here. As discussed above, these LGM simulations do not show dramatic changes in the ITCZ (Braconnot et al., 2007).

However, we should emphasize that, based on time resolution of our data, we cannot say whether a Northern or Southern Hemisphere ITCZ was necessarily present for the entirety of our 4000 year time slice. The evidence for a thermocline ridge from LGM aged sediments in both hemispheres is consistent with three different scenarios. The first is that a permanent double ITCZ occurred during the LGM, resulting in a permanent symmetry about the equator in both atmosphere and thermocline structure (a symmetric atmosphere and symmetric ocean). The second is that a single ITCZ occurred, but switched between Northern and Southern Hemispheres on a short enough (e.g. seasonal) timescale to cause a thermocline ridge in each hemisphere (an asymmetric atmosphere and symmetric ocean). The third is that the ITCZ switched between hemispheres on a longer timescale, and that the thermocline ridge also moved between hemispheres, but we see two ridges due to averaging our data over 4000 years (an asymmetric atmosphere and asymmetric ocean). Although our data lack the temporal resolution necessary to distinguish between these hypotheses, they do lend support to the idea of a Southern Hemisphere ITCZ for at least some of the time during the LGM.

While an atmospheric circulation showing a more pronounced Southern Hemisphere ITCZ appears to be consistent with our data, there are other atmospheric circulation states that could produce a similar Southern Hemisphere ridge or dome in the Western Tropical Pacific. For example, as discussed in section 1.3 today there is a subtle Southern Hemisphere ridge in the Western Tropical Pacific associated with the negative wind stress curl of the Subtropical Convergence, which is slightly stronger than the more positive wind stress curl over the central and eastern Pacific at the same latitude. If the circulation associated with the Subtropical Convergence were to intensify, a ridge or dome in the Western Tropical Pacific might intensify.

Today the Western Pacific Monsoon drives annual thermocline depth changes of up to 25 m in the Western Tropical Pacific centered at approximately 15°S and 165°E (Wang et al., 2000). The minimum thermocline depth in April and May reflects the minimum in wind stress curl (maximum in Ekman pumping) in this region three months earlier at the height of the Southern Hemisphere summer monsoon. One might speculate that we would see some shoaling of the thermocline in this region if the Southern Hemisphere summer monsoon strengthened during the LGM. However, the glacial-interglacial changes in these monsoon regions are likely to be more subtle than the annual range. The doming associated with the modern day monsoon is also further to the south than the ridge in our LGM transect. The annual range in thermocline depth driven by the Western Pacific Monsoon is minimal over our core sites between 4°S and 10°S (Wang et al., 2000) where the data is suggesting a shallower LGM thermocline.

1.4.2 Data Considerations

The above discussion is based on the assumption that our LGM profile fully captures the thermocline structure in the tropical Pacific. However, generating open ocean isotopic records in the tropical Pacific is hampered by low sedimentation rates and dissolution effects. The effects of coring disturbances can also be magnified when attempting high resolution studies in low sedimentation rate areas. More data are needed before we can conclude that the changes in thermocline structure we have identified (particularly the Southern Hemisphere ridge) are robust features of the LGM ocean.

1.4.2.1 Constraining the Southern End of the LGM transect

The data from the core at 16°S (RC12-117, Figure 8a) drives our interpretation of the higher $\delta^{18}O$ values in the Southern Hemisphere tropics as a ridge. If this core, and the core at 4°S (VM28-236, Figure 8b) were not considered, one might interpret the data to suggest a generalized increase in density in the Southern Hemisphere thermocline, rather than a ridge analogous to that found in the Northern Hemisphere today. We do have another core at 14°S (VM28-213, Supplemental Figure 1n). While the out of sequence radiocarbon date at the top of the core precludes including this core in our LGM and Holocene transects, this core shows *G. tumida* values very similar to those shown for RC12-117 at 16°S and increases our confidence that the relatively low *G. tumida* $\delta^{18}O$ value at 16°S represents a real oceanographic feature.

1.4.2.2 Age constraints on *G. ruber*

Age offsets may occur between fossils of species with different vulnerabilities to dissolution in low sedimentation rate cores (Broecker and Clark, 2011). This means that for many of the cores used in this study, we have to consider the possibility that the *G.*

ruber from the portion of the core that contains LGM aged *G. tumida* may be of a different age. We can assess the degree to which this may be affecting the lower sedimentation rate cores by looking at the *G. ruber* time series in the relatively high sediment rate core VM28-234, which should not show large age offsets between the different species. In this core there is no indication of an offset between radiocarbon dates for *G. tumida*, and dates on *G. ruber* and *G. sacculifer* (Table 1). The maximum

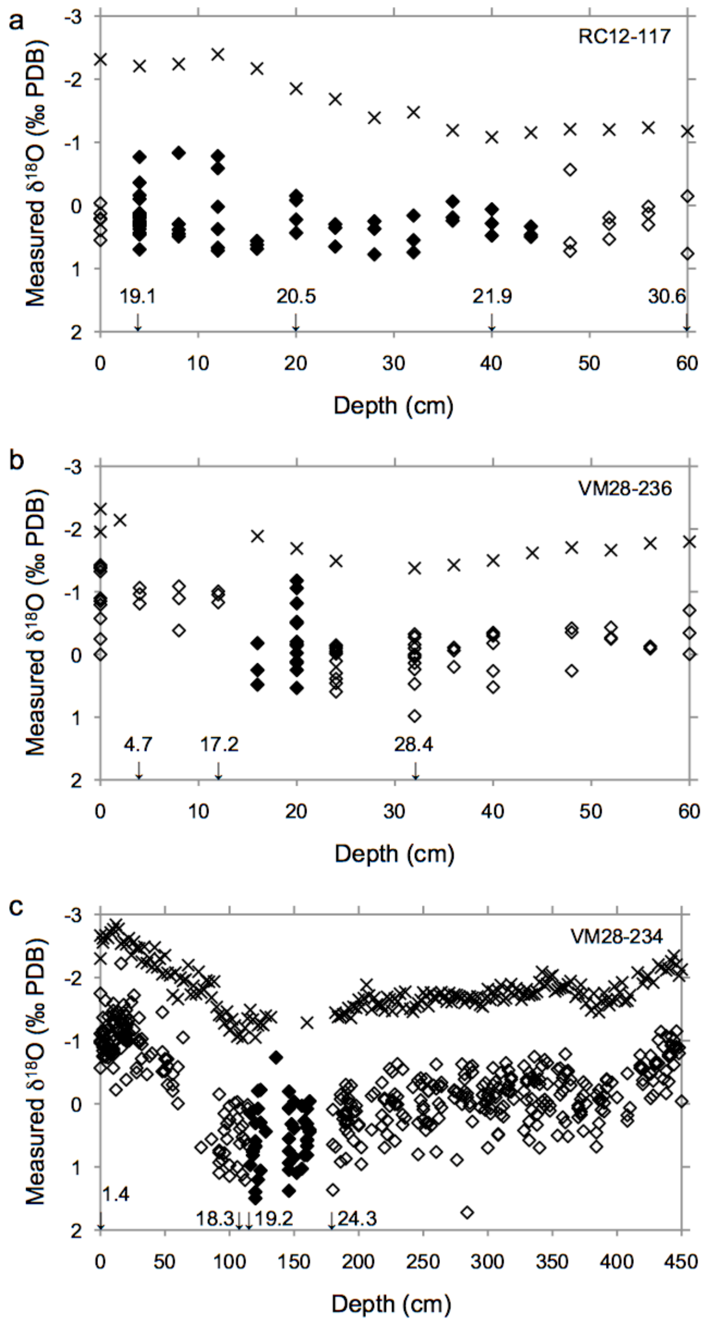


Figure 8: Measured *G. ruber* $\delta^{18}O$ (crosses) and *G. tumida* $\delta^{18}O$ (diamonds) versus depth into sediment of select sediment cores. Filled diamonds represent *G. tumida* data used for LGM averages. Numbers with arrows represent radiocarbon dates converted to calendar age (ka) at given depth (a) RC12-117, 16.4°S 174.5°E. (b) VM28-236, 3.6°S 162.0°E. (c) VM28-234, 7.1°S 159.0°E.

$\delta^{18}O$ value *G. ruber* occurs nearer to the core top that the LGM dated material,suggesting that the *G. ruber* maximum $\delta^{18}O$ value occurs slightly more recently than 19 ka BP (Figure 8c). In all other cores, the *G. ruber* maximum $\delta^{18}O$ value occurs either within or deeper into the sediment than the *G. tumida* radiocarbon intervals (examples in Figure 8, also see Supplemental Figure 1). This suggests that in low sedimentation rate sediment cores, LGM-aged *G. ruber* are found deeper into the sediment than LGM-aged *G. tumida* tests. However, the differences between the maximum $\delta^{18}O$ *G. ruber* values and $\delta^{18}O$ values from *G. ruber* tests which have been taken from the same sediment intervals as the LGM *G. tumida* are relatively small. Since this difference is small, we have chosen to compare *G. tumida* and *G. ruber* tests from the same depth intervals in each core, except in one case. In core VM28-246, radiocarbon-dated *G. tumida* tests are clearly associated with early Holocene *G. ruber* tests, based on the *G. ruber* stratigraphy (Supplemental Figure 1a). In this case, we have used *G. ruber* tests from the next interval deeper into the sediment to represent *G. ruber* from the LGM.

1.4.2.3 Skewness and variance in *G. tumida* data

Part of the difficulty in working with very low sedimentation rate cores is that bioturbation can cause mixing between tests with lighter Holocene $\delta^{18}O$ values and heavier LGM $\delta^{18}O$ values. In the Western Tropical Pacific, mixing occurs to a depth of around 10 cm (Broecker et al., 1991). For a core with a sedimentation rate of 1cm ka^{-1}, the Late Holocene and LGM (as used in this paper) are only separated by 15 cm. We would therefore expect that Late Holocene $\delta^{18}O$ values would be skewed towards LGM values, and that LGM $\delta^{18}O$ values would be skewed towards Holocene values. This skew is apparent in the *G. tumida* $\delta^{18}O$ values from the Holocene intervals of most of our cores, although cores VM28-234 and GGC-49 are skewed in the opposite direction (Supplemental Table 1). The LGM *G. tumida* $\delta^{18}O$ values, however, seem to show no pattern in their skew, either in direction or magnitude (Supplemental Table 2).

1.5 Conclusion

The $\delta^{18}O$ values of the foraminifera *G. ruber* and *G. tumida* reflect seawater properties at approximately 0 m and 150 – 200 m depth and allow us to qualitatively reconstruct the structure of the thermocline. During the LGM, the gradient in $\delta^{18}O$ between the two species does not change significantly in the Northern Hemisphere, relative to the late Holocene, implying that the ridge in the thermocline which exists now also existed at some point during the LGM. However, since we are considering a 4000 year average, and we are unable to compare the thermocline during two time periods quantitatively, we can only make the qualified claim that the ITCZ continued to exist over at least part of the Northern Hemisphere Pacific for at least part of the time interval of the LGM (19-23 ka). In the Southern Hemisphere, the difference between *G. ruber* and *G. tumida* $\delta^{18}O$ values increases between 7°S and 10°S, implying that the thermocline shoals at these latitudes during all or part of the LGM. The reconstructed structure is consistent with that produced in a General Circulation Model with both a Northern and Southern Hemisphere ITCZ. While this ridge in the thermocline is consistent with the existence of a Southern Hemisphere marine ITCZ, for all or part of the time interval of the LGM (19-23 ka), other circulation states could lead to a similar structure. Distinguishing between possible circulation states will require more data from more locations, but we have shown here that thermocline depth reconstructions are potentially a powerful tool for inferring the patterns of atmospheric circulation in the tropics during times in the past.

CHAPTER 2

TOWARDS RECONSTRUCTING THE WESTERN PACIFIC THERMOCLINE STRUCTURE AND THE PACIFIC MARINE INTERTROPICAL CONVERGENCE ZONE DURING MARINE ISOTOPE STAGES 5e AND 6

2.1 Introduction

In the previous chapter, I attempted to reconstruct the western tropical Pacific thermocline during the LGM in order to constrain the position of the glacial ITCZ. As mentioned, many studies, based on both proxy-based reconstructions and climate models, support a more southerly ITCZ during the LGM, but do not give a precise location. In Chapter One, I presented evidence consistent with a Southern Hemisphere ITCZ at some point during the LGM. However, the exact position of the ITCZ during previous glacial cycles has not been much studied. As discussed in chapter one, there is both paleo-proxy based and model based evidence for a southern shift of the Pacific ITCZ between the Holocene and the LGM, but less evidence for the actual position. In the case of earlier glacial cycles, there is less study still. If a reconstruction of the western tropical Pacific thermocline showed a Southern Hemisphere thermocline ridge during MIS 6, that would lend support to the southward shifted glacial ITCZ suggested in the previous chapter. The state of the tropical Pacific thermocline and ITCZ during MIS 5e are of interest because MIS 5e is in some respects an analogue for a warmer Holocene. However, gaps in the isotope data and difficulties with dating the low-sedimentation rate sediment cores of the western tropical Pacific mean that only the Northern Hemisphere thermocline can be reconstructed for MIS 5e and 6, and without a precise location for the Northern Hemisphere thermocline ridge.

2.1.1 Paleo-proxy reconstructions and climate models of MIS 5e and 6

Marine Isotope Stage (MIS) 5e is the most recent analogue of the Holocene. It is especially worthwhile reconstructing MIS 5e in the context of modern climate change concerns because MIS 5e is believed to be warmer and wetter than the present, with a higher sea level (Bianchi and Gersonde, 2002). One alkenone reconstruction yields SSTs in the Southern Hemisphere which are higher during MIS 5e than during the early Holocene, and warmer during MIS 6 than during the LGM, with increased equator-pole temperature gradients during the glaciation at MIS 6 versus the LGM (Pahnke and Sachs, 2006). Similarly, another alkenone reconstruction shows that sea surface temperatures in the southeastern Pacific were warmer than the Holocene during the four preceding interglacials, and warmer than the LGM during any of the four preceding glacials (Calvo et al., 2001). Bianchi and Gersonde (2002) show diatom assemblages from the Southern ocean which seem to indicate sea surface temperatures 2-3°C higher than present at the end of Termination II.

In the Northern Hemisphere, several lines of evidence support a Last Interglacial which was warmer than the Holocene (Kukla et al., 2002). A synthesis of various paleo-proxies suggests that the Arctic summers of MIS 5e were approximately 5°C warmer than Holocene Arctic summers (Anderson et al., 2006).

These paleo-proxy data are supported by a CCSM study of the Last Interglacial in which Arctic summer temperatures exceed those of the Holocene by an average of 2.4°C (Otto-Bliesner et al., 2006). In another GCM study of the Last Interglacial, tropical

Pacific precipitation decreased north of the equator and increased south of the equator as northern high latitude SSTs decreased by 2-3°C between 125 and 115 ka (Gröger et al., 2007), which may support the idea of relatively stronger convection during MIS 5e compared to the Holocene. Additionally, Dubois and Keinast (Dubois et al., 2009) suggest that a northward-shifted ITCZ is responsible for changes in ocean convergence in the eastern equatorial Pacific, based on nitrogen isotope data.

In Chapter One, the hypothesis was that a reduced interhemisphere temperature gradient during the LGM, relative to the Holocene would cause the ITCZ to move southward from its current position. This hypothesis assumes that glacial-interglacial temperature variations are greater in the Northern Hemisphere. If this is the case, then I should expect to see a southward movement of the ITCZ during MIS 6, analagously with the LGM, although the relative warmth of MIS 6 versus the LGM means that the movement may not be as large as that suggested in Chapter One. Since MIS 5e is warmer than the Holocene, it is possible that the ITCZ might be either north of its Holocene position, or more intense.

2.2 Methods

G. tumida from sediment core intervals were radiocarbon dated to the LGM as discussed in chapter one. Since radiocarbon dating is limited to the most recent 40 ka, this method is inappropriate for MIS 5e and 6. Instead, as in chapter one, the *G. ruber* $\delta^{18}O$ stratigraphy has been used to give a rough estimate of the depth into the sediment of Termination II. For three of the sediment cores (VM24-110, VM28-233, and VM28-213) only the *G. ruber* $\delta^{18}O$ stratigraphy is available (Figure 9). For four of the sediment

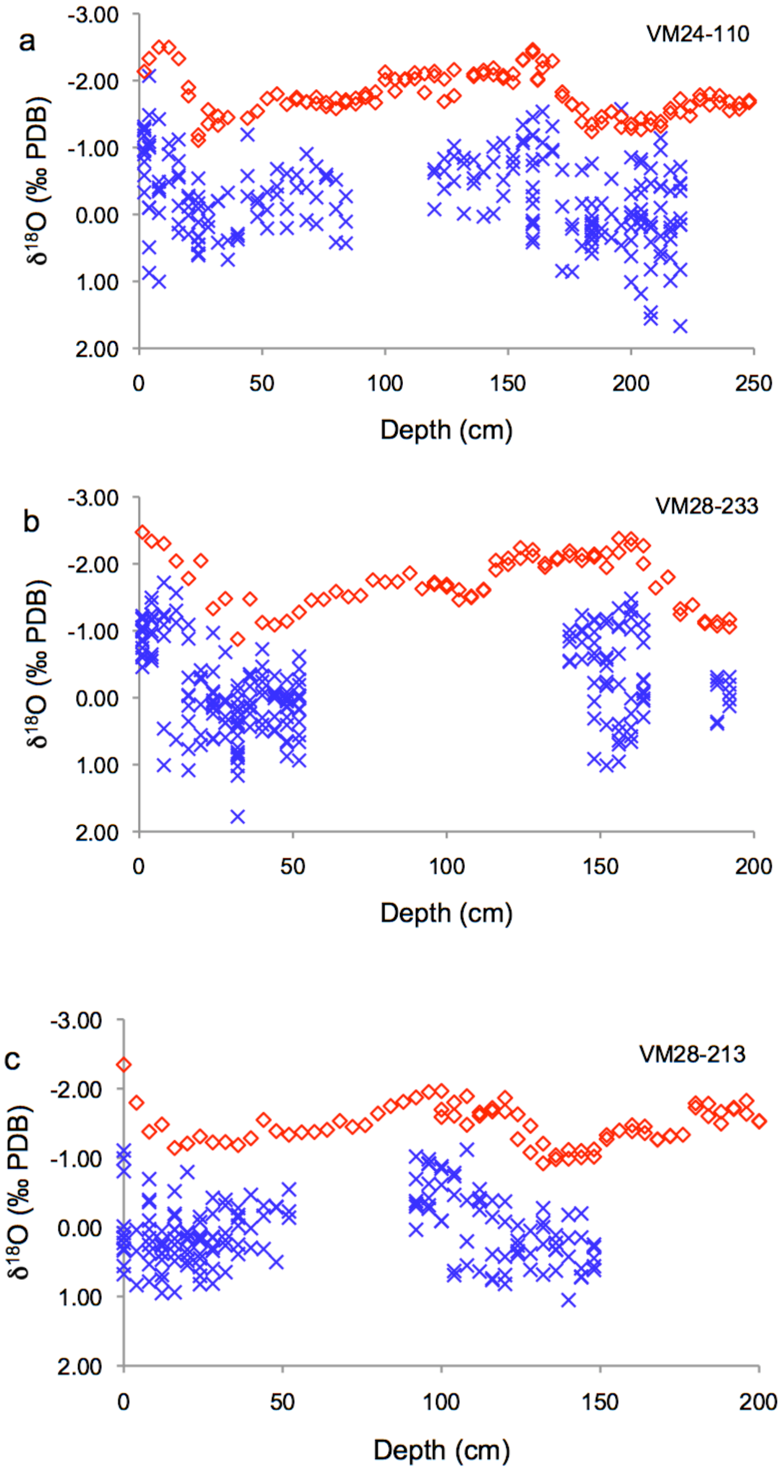


Figure 9: Measured *G. ruber* $\delta^{18}O$ (red diamonds) and individual *G. tumida* $\delta^{18}O$ (blue crosses) versus depth into sediment for cores used in this chapter. (a) VM24-110, 2.4°N 156.7°E (b) VM28-233, 6.3°S 161.4°E (c) VM28-213, 14.9°S 176.2°E

cores (VM28-246, GGC-49, RC17-176, and VM28-234), the $\delta^{18}O$ stratigraphy of *Cibicides wuellerstorfi* (picked from the < 500 μm size interval) was available and has also been used (Figure 10). For the purposes of this study, the absolute dating of MIS 5e and MIS 6 is less important than the difference in climate between the stages. For this reason, a benthic stack based dating is used as a guide, where the data is available, but actual MIS 5e and MIS 6 data is assumed to be represented by extremes in the stratigraphy of each species in each core. For example, I will be defining MIS 6 for *G. tumida* as the sediment intervals containing *G. tumida* with maximal $\delta^{18}O$, rather than necessarily as the sediment intervals containing *C. wuellerstorfi* which have been wiggle matched to the LR04 stack.

Due to the uncertainties discussed in the previous section, using a benthic $\delta^{18}O$ stratigraphy such as LR04 (Lisiecki and Raymo, 2005) to date my *G. tumida* samples may not work well for such low sedimentation rate cores. Slowey and Curry (1995) argued that glacial and interglacial isotope fractionation values could be established in bioturbated, low sedimentation rate cores by analyzing tests singly and then examining the data (in their case $\delta^{13}C$) associated with tests which had minimal or maximal $\delta^{18}O$ values. This method has also been used by Matsumoto and Lynch-Stieglitz (1999) to differentiate glacial and interglacial benthic foraminifera at low sedimentation rate sites in the Pacific. The advantage of the method is that, even if a given interval is not necessarily dated to the glacial maximum, it may contain glacial maximum-aged material which can be easily identified. This is especially useful in this study in cases where data collection has been truncated. However, Matsumoto and Lynch-Stieglitz (1999) had very

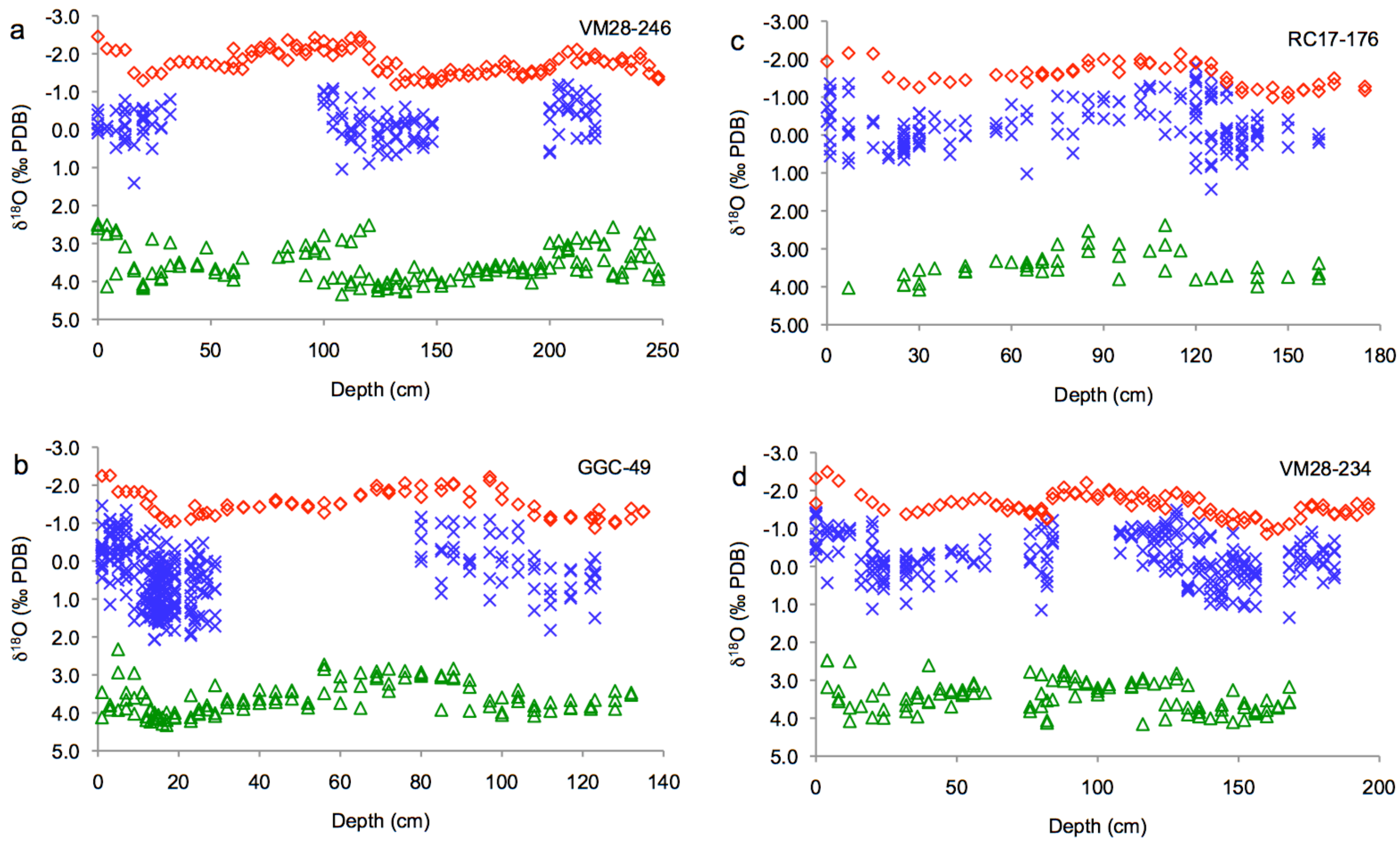


Figure 10: *G. ruber* $\delta^{18}O$ (red diamonds), individual *G. tumida* $\delta^{18}O$ (blue crosses), and individual *C. wuellerstorfi* $\delta^{18}O$ (green triangles) versus depth into sediment for cores used in this chapter. (a) VM28-246, 14.4°N 142.7°E (b) GGC-49, 7.9°N 139.5°E (c) RC17-176, 3.8°N 158.8°E (d) VM28-236, 3.6°S 162.0°E.

well separated populations with an obvious bimodal distribution of $\delta^{18}O$ values, which is lacking in my data. Instead, I have used the *G. tumida* $\delta^{18}O$ stratigraphy to locate the deglaciation (as a relatively large change in *G. tumida* $\delta^{18}O$ values which is also close to a relatively large change in the *G. ruber* and *C. wuellerstorfi* $\delta^{18}O$ data), and then used all collected data on either side to establish values for MIS 5e and 6. As in chapter one, the fact that whole ocean $\delta^{18}O$ values change slightly over the course of a glacial interval, and the probable mixing in the sediment mean that the differences in *G. tumida* $\delta^{18}O$ values between MIS 5e and MIS 6 are probably smaller than the actual change in seawater $\delta^{18}O$. *G. tumida* from the 425-500 μm size interval were picked from the probable sediment intervals of MIS 5e and 6, and isotopic analysis was performed as described in chapter one.

2.3 Results

Core GGC-49 is heavier than other cores during both isotope stages (Figures 11 and 12). This implies the existence of a Northern Hemisphere ITCZ during both MIS 5e and MIS 6, although the same caveats must be applied to this assertion as were applied in chapter one. The first is that the causal link between thermocline ridge and ITCZ position is not necessarily settled, and that local effects, such as the influence of the monsoons, may affect the shape of the thermocline in the Western Tropical Pacific as much as basin-wide effects. Secondly, that the appearance of the ridge in this data set does not prove the continuous existence of the ridge (and therefore the Northern Hemisphere ITCZ) during the two time periods, since bioturbation on such low-sedimentation rate sediment cores necessarily requires averaging over large time intervals. Thirdly, no attempt at quantification is assumed, which means that this data cannot be used to assess actual changes in the shape or magnitude of the ridge, and therefore cannot yield qualitative assessments of the ITCZ.

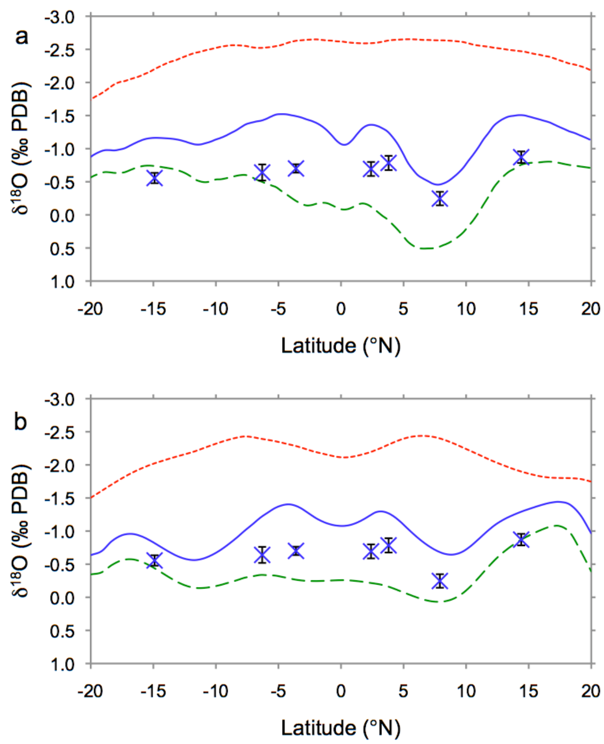


Figure 11: Average measured $\delta^{18}O$ values for MIS 5e *G. tumida* (blue crosses). Error bars for measured $\delta^{18}O$ values represent standard error of the mean. a) MIS 5e data compared to predicted values based on temperature and salinity values from the World Ocean Atlas (Antonov et al., 2010; Locarnini et al., 2010) at 0 m (red line), 150 m (blue line), and 200 m (green line) along the transect in Figure 5 assuming no change in upper ocean structure between the Holocene and MIS 5e. b) MIS 5e data compared to predicted values based on the response of the GFDL CM2.0 global coupled ocean-atmosphere model to an imposed anomalous freshwater flux into the northern North Atlantic (model and experiment details provided in Zhang and Delworth (2005)). Seawater $\delta^{18}O$ is predicted from model salinity using the same equations as described for the observations in Chapter 1, Section 2.4.

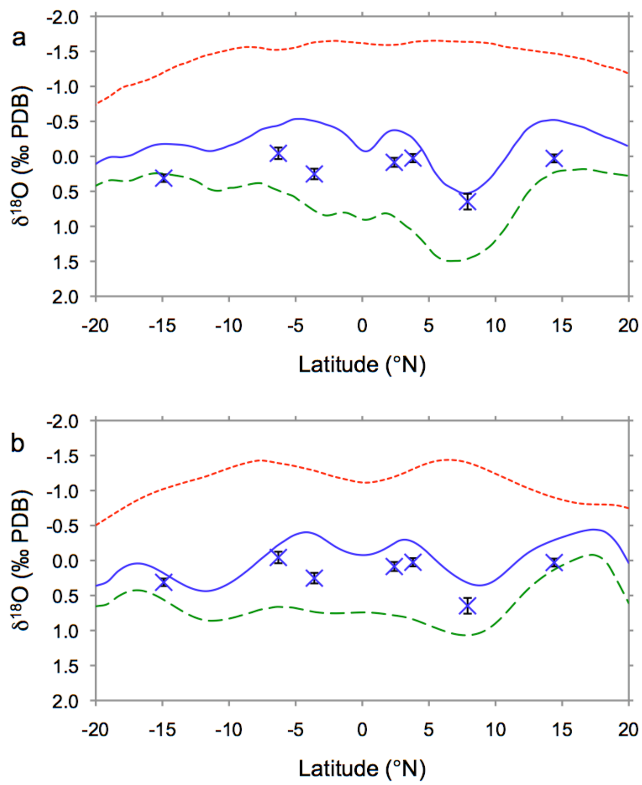


Figure 12: Average measured $\delta^{18}O$ values for MIS 6 *G. tumida* (blue crosses). Error bars for measured $\delta^{18}O$ values represent standard error of the mean. a) MIS 6 data compared to predicted values based on temperature and salinity values from the World Ocean Atlas (Antonov et al., 2010; Locarnini et al., 2010) at 0 m (red line), 150 m (blue line), and 200 m (green line) along the transect in Figure 5 assuming no change in upper ocean structure between the Holocene and MIS 6. $\delta^{18}O$ values for transects were calculated as in Figure 6, but shifted by +1‰ to account for a glaciation-induced whole ocean water $\delta^{18}O$ change, assuming that the difference between the Holocene and MIS 6 values is the same as that between the Holocene and LGM (Schrag et al., 1996). b) MIS 6 data compared to predicted values based on the response of the GFDL CM2.0 global coupled ocean-atmosphere model to an imposed anomalous freshwater flux into the northern North Atlantic (model and experiment details provided in Zhang and Delworth (2005)). Seawater $\delta^{18}O$ is predicted from model salinity using the same equations as described for the observations in Chapter 1, Section 2.4. $\delta^{18}O$ values for modeled transects were shifted by +1‰ to account for a glaciation-induced whole ocean water $\delta^{18}O$ change between the Holocene and MIS 6, assuming that the difference between the Holocene and MIS 6 is the same as that between the Holocene and LGM (Schrag et al., 1996).

2.4 Discussion

2.4.1 Uncertainties in Dating of MIS 5e and MIS 6 material

Since radiocarbon dating is inappropriate for materials much older than 30 ka, other methods must be used to date sediment from MIS 5 and 6. Shackleton (1967) was one of the early studies to argue that the main signal in benthic foraminiferal $\delta^{18}O$ over time was global ice volume, and Broecker and van Donk (1970) linked global $\delta^{18}O$ to glaciation to insolation forcing at high latitude. This means that benthic foraminifera $\delta^{18}O$ values can be assumed to be a glaciation stratigraphy, and that terminations (rapid deglaciations) can be linked to insolation curves. Since insolation curves can be calculated back through time, glaciations can be dated. The main source of error in this dating method is due to the offset between the climate signal and the response in the deep ocean. There is some evidence that changes in deep water $\delta^{18}O$ records may not be synchronous with glacial sea level change (Skinner and Shackleton, 2006), and there may be an offset between basins (Skinner and Shackleton, 2006). The LR04 stack (Lisiecki and Raymo, 2005) is a global average of sediment core data, and therefore assumes no offset between ocean basins. These types of errors are related to the relative dating of the cores. However, even if a proper age model can be applied to the benthic stratigraphy, there are still problems dating planktonic foraminifera by this method, because of potential age offsets between benthic and planktonic species within the same sediment interval.

There is an offset between planktonic and benthic foraminifera in the tropical Pacific of approximately 1000 years, caused by transit time from the surface to deep water for Pacific Deep Water (Stott et al., 2007). This transit time causes differences in reservoir ages for the deep and surface ocean, which means that, all else being equal, species which show different radiocarbon ages in a single sediment interval are not different ages. However, it also hints that there may be delays between planktonic foraminifera recording a climate event and benthonic foraminifera recording it (because of the time taken for the signal to propagate from surface to deep ocean).

There is evidence that tests from fragile and robust foraminifera in the same sediment interval will have different radiocarbon ages, due to differential dissolution between different species with different susceptibility to dissolution (Broecker and Clark, 2011). These age offsets will occur even where radiocarbon dating is not used. On the other hand, these offsets are on the order of a thousand years (Broecker et al., 2006), which is comparable to the error in dating which occurs when using matching to benthic $\delta^{18}O$ records (Oliver et al., 2010). Since this offset generally occurs between robust and fragile species, this should be less of a concern when comparing *G. tumida,* which is a comparatively robust planktonic foraminifera (Berger, 1970) and *C. wuellerstorfi* as a benthic foraminifera are considered robust, this is unlikely to be a major factor in this case.

Another limitation is that bioturbation causes tests of one age to be present in several different sediment intervals. This is probably most evident in the benthic stratigraphy of core VM28-246 where there is a bimodal distribution of *C. wuellerstorfi* $\delta^{18}O$ values at MIS 5e and MIS 6 (Figure 10a). The separate populations are most likely from before and after the abrupt deglaciation, and have been mixed together. If we assume that this is the case, we can separate $\delta^{18}O$ values of individual *G. tumida* and assume that the lighter values represent MIS 5e values and that the heavier values are from MIS 6.

2.4.3 Comparison of MIS 5e and 6 data to predicted and modeled data

I can test the hypothesis that MIS 5e and MIS 6 are analogous to the Holocene and LGM, respectively, by comparing the *G. tumida* $\delta^{18}O$ data to observational data and modeled data, as in chapter one. This comparison is presented in Figures 11 and 12, and the *G. tumida* data sit between the 150 m and 200 m depth reconstructions in all cases. This is unsurprising, since I expect to see the largest change in thermocline structure in the Southern Hemisphere at approximately 6-14°S, and this reconstruction only contains *G. tumida* $\delta^{18}O$ data from outside this region. Although key Southern Hemisphere data is missing, these data are consistent with the Northern Hemisphere remains relatively unchanged during the MIS 5e and MIS 6.

The two transects appear to be very similar to each other, with an offset of approximately 0.8-0.9‰, except for core VM28-213, which has a smaller gap. Most notably, *G. tumida* of core GGC-49 are isotopically heavier than the other Northern Hemisphere sediment cores in both MIS 5e and MIS 6. This implies that the Northern Hemisphere thermocline ridge which was evident in both the late Holocene and LGM also persists before and after Termination II. Combining the data presented in chapter one with the data presented in this chapter, the evidence is consistent with a Northern Hemisphere thermocline ridge, and therefore a Northern Hemisphere ITCZ, for at least part of MIS 1, 2, 5e, and 6.

Unfortunately, Southern Hemisphere data in the critical area between 6°S and 14°S is missing. In chapter one, *G. tumida* oxygen isotope data from several cores at these latitudes were isotopically heavier during the LGM than data from the rest of the Southern Hemisphere. This implied a Southern Hemisphere thermocline ridge, and therefore a Southern Hemisphere ITCZ during the LGM. For MIS 5e in the Northern Hemisphere, *G. tumida* $\delta^{18}O$ data fit well between predicted calcite equilibrium $\delta^{18}O$ values calculated (as described in chapter one) based on salinity and temperature data at 150 m and 200 m (Figure 11). For MIS 6, the Northern Hemisphere *G. tumida* $\delta^{18}O$ data fit between the same values, plus 1‰. One per mille is added to make the calculated values a more reasonable representation of the MIS 6 glacial (the actual value versus modern is not well known).

If the Northern Hemisphere MIS 5e and 6 *G. tumida* $\delta^{18}O$ data are similarly compared to estimates based on the output data of (Zhang and Delworth, 2005), the fit is also good (Figures 11 and 12). The differences between World Ocean Atlas derived values and values based on Zhang and Delworth during the LGM are significant. But when I compare my Southern Hemisphere *G. tumida* data for MIS 5e and 6 to the World Ocean Atlas and these Zhang and Delworth based profiles, it is evident that data is missing from the location of the SH thermocline ridge predicted by Zhang and Delworth.

2.4.4 Comparison of MIS 5e data to Late Holocene data and MIS 6 data to LGM data

If MIS 5e is a good analogue for the Late Holocene climate, and the LGM is similar to MIS 6, then I would expect that my MIS 5e and Late Holocene *G. tumida* $\delta^{18}O$ data would intercorrelate well, and that there would be a good correlation between *G. tumida* $\delta^{18}O$ data from the LGM and from MIS 6. These comparisons are shown in Figure 13. The data from MIS 5e and the Late Holocene (Figure 13a) correlate very well

($R^2 = 0.96$), but only because there is so little data, which makes the comparison less meaningful. The comparison between the LGM and MIS 6 has more data to depend on (Figure 13b). In this case, the correlation is poor ($R^2 = 0.33$) and the trend appears to be driven solely by the extreme data from sediment core GGC-49, which is at the location of the Northern Hemisphere thermocline ridge.

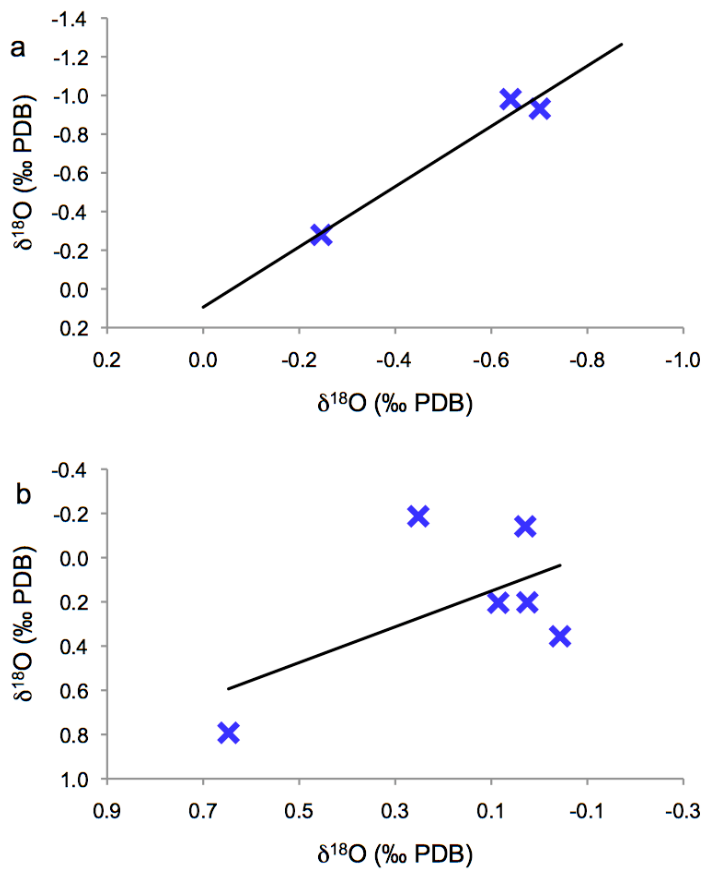


Figure 13: Comparisons between *G. tumida* average $\delta^{18}O$ values for possibly analogous time slices. Blue crosses are $\delta^{18}O$ values, black lines are linear trendlines. a) MIS 5e (*x*-axis) versus Holocene (*y*-axis). b) MIS 6 (*x*-axis) versus LGM (*y*-axis).

One reason for the mismatch between sets of glacial data is probably the uncertainty and error associated with the MIS 6 reconstruction. However, the mismatch could plausibly be caused in part by real differences between the LGM Pacific and the MIS 6 Pacific.

2.5 Conclusion

More data is needed. Although this study has been able to capture the Northern Hemisphere thermocline ridge, it has been unable to determine the profile of the Southern Hemisphere thermocline in the critical latitudes between 5°S and 10°S. Unfortunately, the high-resolution core VM28-234 which provided some of the best evidence for a Southern Hemisphere thermocline ridge during the LGM is too short to provide MIS 5e and 6 data. However, further study of cores VM28-229 and VM28-227 may yield useable $\delta^{18}O$ data which would shed light on the existence or nonexistence of a Southern Hemisphere thermocline ridge before and after the penultimate deglaciation. Additionally, data from sediment cores with higher sedimentation rates, and therefore better temporal resolution, would go a long way toward building confidence in dating of material, if they could be found in this part of the ocean.

CHAPTER 3

DISSOLUTION OF CARBONATE IN THE WESTERN TROPICAL PACIFIC DURING THE HOLOCENE AND LAST GLACIAL MAXIMUM

3.1 Introduction

In the previous two chapters, I made measurements of foraminiferal $\delta^{18}O$ values in order to reconstruct western tropical Pacific surface currents. During $\delta^{18}O$ analysis, foraminiferal $\delta^{13}C$, the masses of tests in specific size intervals, and the masses of sediment intervals before and after washing over a 63 μm seive are all recorded. Test mass and % sediment > 63 μm have both been previously used as dissolution proxies, and benthic foraminiferal $\delta^{13}C$ has been related to the corrosiveness of bottom waters. In this chapter, I use these proxies in an attempt to reconstruct the depth of the lysocline during the Late Holocene and Last Glacial Maximum, and also during the deglaciation, when several studies predict or observe a preservation maximum in sedimentary calcium carbonate. Although my data are unable to specify the lysocline depth during the Late Holocene or Last Glacial Maximum, several of my sediment cores show a preservation maximum during the last deglaciation.

3.1.1 Carbon partitioning between the atmosphere, ocean, and sediment

Part of the key to understanding the climatic consequences of ongoing anthropogenic atmospheric CO_2 production is understanding the fate of that CO_2. On orbital timescales, atmospheric CO_2 is controlled by oceanic, and ultimately sedimentary processes (Broecker and Peng, 1987). On shorter timescales, increased atmospheric CO_2 concentrations are already having an effect on the ocean carbonate system (Doney et al., 2009; Feely et al., 2004), and it is likely that the excess carbon being produced by humans will continue to be apparent in the atmosphere-ocean system on much longer timescales than are usually considered (Archer, 2005). Although shallow water deposition of calcium carbonate plays a role in the ocean's uptake of atmospheric carbon, deep ocean sediment is also a major sink of calcium carbonate in the ocean (Milliman, 1993). Therefore, we need to understand the mechanisms which effect carbonate concentrations in the deep ocean, including dissolution and preservation of biogenic calcium carbonate in the sediment. Although great progress has been made on this front in the last fifty years, questions remain (Broecker, 2009).

The solubility of calcium carbonate in seawater increases with increasing pressure (Hawley and Pytkowicz, 1969), meaning that, while the surface ocean is saturated or oversaturated, seawater at the ocean floor can be undersaturated. Near the transition to undersaturated waters, carbonate dissolution in the sediments becomes rapid, defining a level in the ocean termed the lysocline (Berger, 1970). The lysocline is distinct from the carbonate compensation depth, which is the (deeper) depth at which dissolution equals import to the sediment, or the depth of zero calcite accumulation (Berger et al., 1982). Although dissolution above the lysocline occurs (Milliman et al., 1999), it appears to be less important.

Although there are several factors which determine the spatial distribution of sediment calcite dissolution (Dunne et al., 2012), the depth of the lysocline is controlled largely by relative carbonate saturation in seawater overlying the sediment, and production of organic matter, which generates acidic (and therefore corrosive) CO_2 in porewaters as it oxidizes. The effect of respiration of organic matter in sediment is modulated by saturation state of overlying bottom water (Hales, 2003; Jahnke et al., 1994; Jahnke and Jahnke, 2004). The depth of the modern lysocline varies between ocean basins. Over the Ontong-Java Plateau, the lysocline is at approximately 3400 m (Berger et al., 1982). In the central tropical Pacific, it is at approximately 3700 m (Farrell and Prell, 1989), as determined by % $CaCO_3$ in sediments.

During the LGM, atmospheric CO_2 is shunted from the atmosphere into the deep ocean by several mechanisms. Oceanic control over atmospheric carbon content via removal of biological carbon to the deep ocean and sediment was first articulated by Broecker (1982). He suggested that this biological pump was changed by variations in either ocean phosphate content or a modification of the Redfield ratio. Keir (1988) tested this hypothesis with a box model, and suggested specifically that an increase in production in the Southern Ocean could account for this movement. A box model suggests that ventilation of the deep ocean around Antarctica is decreased by increased sea ice in the Southern Ocean, which prevents gas exchange between the ocean and atmosphere (Stephens and Keeling, 2000). Results from a general circulation model suggest that ventilation of the deep ocean is reduced as part of a positive feedback, where cooler temperatures cause the westerly winds around Antarctica to move equatorward, decreasing upwelling of deepwater, decreasing CO_2 outgassing in the Southern Ocean to the atmosphere, and decreasing global temperatures (Toggweiler et al., 2006), although the response of the westerly winds to LGM boundary conditions remains ambiguous in other simulations (Rojas, 2013). Iron fertilization of the Southern Ocean is also implicated: an increase in dust loading over the Southern Ocean during the LGM causes a strengthening of the biological pump, increasing utilization of preformed nutrients, and therefore reducing the Southern Ocean CO_2 leak (Martin, 1990; Martínez-Garcia et al., 2009). That is, inorganic carbon in the surface ocean is utilized and exported from the surface ocean to the deep ocean, rather than exchanging with the atmosphere. This causes a decrease in the export of alkalinity from the surface ocean to deep ocean, allowing the surface ocean to absorb more CO_2.

This decrease in deep ocean alkalinity should initially cause the deep ocean to become undersaturated with respect to carbonate, causing a carbonate dissolution spike. However, as burial of calcite decreases, total ocean alkalinity should begin to increase, due to unabated riverine input of carbonate to the ocean. As whole ocean alkalinity increases, the lysocline deepens to bring the system back to steady state (that is, input of alkalinity to the ocean from the continents becomes balanced by output of alkalinity to sediment from the ocean). Although the difference in lysocline between glacial and interglacial climates may be small, preservation and dissolution spikes are expected for the deglaciation and glaciation, respectively (Boyle, 1988). Thus, calcite dissolution forms part of a positive feedback with atmospheric CO_2 concentrations over glacial cycles (Archer et al., 2000), and carbonate compensation is one of the several key mechanisms for reduction of atmospheric CO_2 during the LGM (Brovkin et al., 2007; Sigman and Boyle, 2000; Sigman et al., 2010).

Several models have attempted to recreate the effects of carbonate compensation during the last glacial. A decrease in shallow sedimentation during the LGM causes the LGM carbonate compensation depth to deepen in a medium-complexity climate model (Brovkin et al., 2012; Brovkin et al., 2007). In a model, Dunne et al., (2012) find evidence of increased Pacific calcite preservation in response to reduced preservation in the Atlantic. However, Sigman and Boyle (2000) assume (and find) no change in LGM lysocline depth versus modern.

3.1.2 Paleo-proxies for carbonate dissolution

The reconstruction of calcite dissolution and carbonate concentrations in deep water has prompted the development of several paleoproxies: Fragmentation of *Globorotalia menardii* (Oba, 1969), later refined as the *Menardii* Fragmentation Index (MFI) (Mekik and François, 2006; Mekik et al., 2002) is based on the assumption that foraminiferal tests will fragment into smaller pieces as they dissolve. This same assumption lies behind the % 63 μm proxy, which looks at the weight percentage of a sample greater than 63 μm (Peterson and Prell, 1985). Broecker and Clark (1999) used this ratio of > 63 μm $CaCO_3$ to total $CaCO_3$ to reconstruct modern seafloor carbonate concentrations to within 5 μM, but offered caveats for the use of the proxy in reconstructing past carbonate concentrations. Notwithstanding, the % 63 μm $CaCO_3$ proxy has also been used to reconstruct changes in deep sea carbonate concentration over the last 8000 years (Broecker et al., 1999), and Lalicata and Lea (2011) used the % > 150 μm fraction as a proxy for dissolution. Several studies have linked elemental ratios in tests of planktonic foraminiferal tests to dissolution (Brown and Elderfield, 1996; Mekik and François, 2006). McCorkle et al. (1995) argue for a dissolution control on benthic foraminifera metal/calcium ratios. Several of these proxies intercorrelate to some degree and can be combined into a single Composite Dissolution Index (Peterson and Prell, 1985). The variation of density of foraminifera, combined with isotopic analysis, can be used to trace dissolution and diagenesis (Lohmann, 1995). Simply looking at weights of planktonic foraminifera from a given size interval has also been used to reconstruct dissolution and preservation (Marchitto et al., 2005) (although see Broecker and Clark (2003) for a possible failure of this method).

As deep water masses age, sinking biological matter reforms into inorganic nutrients, causing the water to become more corrosive. Therefore nutrient tracers have been used to reconstruct locations of more or less corrosive bottom waters. In the west tropical Pacific, Marchitto et al. (2005) found test mass-based evidence for a preservation spike during the last deglaciation, concurrent with Zn/Ca evidence for a pulse of increased carbonate concentration. Evidence for increased preservation and dissolution at climatic transitions based on dissolution was also presented by Lafontaine et al. (1996). Matsumoto et al. (2002) found $\delta^{13}C$ evidence to suggest that the boundary between intermediate water and deep water in the Pacific was deeper during the LGM than today, and implying a circulation below 2000 m which is similar to today's, but vertically compressed. In the central tropical Pacific, Farrell and Prell (1989) showed, based on sedimentary % $CaCO_3$, that changes in lysocline depth were associated with climate transitions, with preservation maxima during the late parts of glacials and preservation minima during the late parts of interglacials.

Out-of-phase preservation and dissolution in the Atlantic and Pacific over glacial cycles was described by Boyle (1988). A synthesis of data from several sources performed by Catubig et al. (1998) showed better preservation in the Pacific during the LGM, and in the Atlantic during the Holocene. This is consistent with the idea of increased preservation in the Pacific offsetting worse preservation in the north Atlantic during the LGM. Worse preservation in the north Atlantic is caused by increased density in AABW allowing the more corrosive AABW to displace NADW in the north Atlantic

(Catubig et al., 1998). This study also found (roughly) similar total calcite export to the sediment during the Holocene and LGM. The displacement of NADW by AABW in the glacial Atlantic is supported by various paleonutrient proxies in foraminiferal tests, such as Cd/Ca ratios (Boyle and Keigwin, 1985; Marchitto and Broecker, 2006), and Zn/Ca ratios (Marchitto et al., 2002). Changes in magnitude of southern source deep water, and the consequent changes to ventilation in the Southern Ocean and North Atlantic over glacial cycles probably lead to the beginning of this out of phase dissolution pattern around the mid-Pleistocene transition (Sexton and Barker, 2012).

In this chapter, I will be looking through data collected largely for the analysis of Chapter One for evidence of glacial to interglacial changes in corrosiveness of deeper waters in the western Pacific (based on $\delta^{13}C$ of benthic foraminifera) and changes in lysocline depth between the glacial and interglacial (based on depth profiles of foraminifera mass and coarse fraction between the two stages) and also for the preservation spike at the beginning of the deglaciation using time profiles of foraminifera mass and coarse fraction.

3.2 Method

All preparatory work for this chapter was performed for the analysis in Chapter 1 (Leech et al., 2013). Sediment samples were taken from dry sediment cores, and weighed. Briefly, for the % > 63 μm measurement, dry sediment intervals were weighed, soaked in deionized water over night, then manually washed over a 63 μm sieve, before being dried overnight in a 70°C oven. The dried residue was then weighed again. For the benthic $\delta^{13}C$ measurements tests of the benthic foraminifera *Cibicides wuellerstorfi* were picked from all size intervals of washed sediment, weighed individually, and analyzed for $\delta^{18}O$

and $\delta^{13}C$ on a MAT253 mass spectrometer with Delta IV carbonate device. The weights of planktonic foraminifera tests were measured routinely before the isotopic measurements taken for Chapters 1 and 2: *G. tumida* were weighed and analyzed singly, *G. ruber* were weighed and analyzed in groups of ten.

3.3 Results

3.3.1 Benthic $\delta^{13}C$

Since this analysis was performed retroactively on available data, it is limited to two dissolution indices; foraminiferal test mass (of the planktonic species *G. tumida* and *G. ruber*), and sediment % > 63 μm. There is also one nutrient tracer, which is a proxy for water mass "age", benthic $\delta^{13}C$, collected from the species *C. wuellerstorfi*. The benthic $\delta^{13}C$ data is presented in Figure 14. Due to a scarcity of *C. wuellerstorfi* in my sediment samples, the boundary "Late Holocene" has been extended from 4 ka to 5 ka. As can be seen in the figure, there is a large overlap in $\delta^{13}C$ values, suggesting that either bioturbation has mixed together material of Holocene and LGM age, or that there is no real difference in glacial and interglacial $\delta^{13}C$ values. Plotting the $\delta^{13}C$ against $\delta^{18}O$ from the same individual tests (Figure 15) shows a clear linear relationship between the two values ($R^2 = 0.77$). Since heavier oxygen isotope values are associated with glacial-aged material, it seems that the problem is bioturbation. Rejecting LGM data from sediment core VM28-246 (which contains the three lightest LGM $\delta^{18}O$ values and one other value) and rejecting any Holocene data with a $\delta^{18}O$ heavier than 3‰ gives the average values for Holocene and LGM benthic $\delta^{13}C$ shown in Figure 16. These values are consistent with the Holocene benthic $\delta^{13}C$ values given by Matsumoto et al. (2002) and also shown in Figure 16, although the Matsumoto data set also contains some values which overlap my LGM values. Although the number of individual Holocene data is low, it is clear that LGM $\delta^{13}C$ values were lighter than Holocene between 1700 and 3700 m depth.

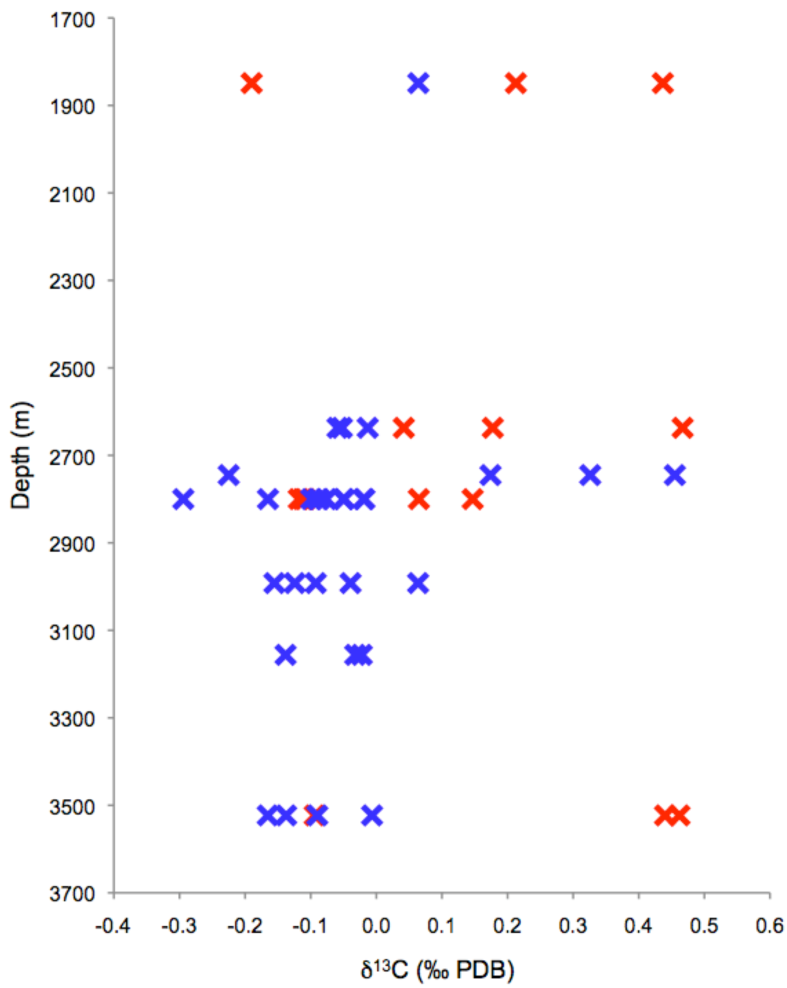


Figure 14: All individually measured $\delta^{13}C$ values for *C. wuellerstorfi* versus depth into the ocean from sediment intervals radiocarbon dated to the Late Holocene (red crosses) and LGM (blue crosses).

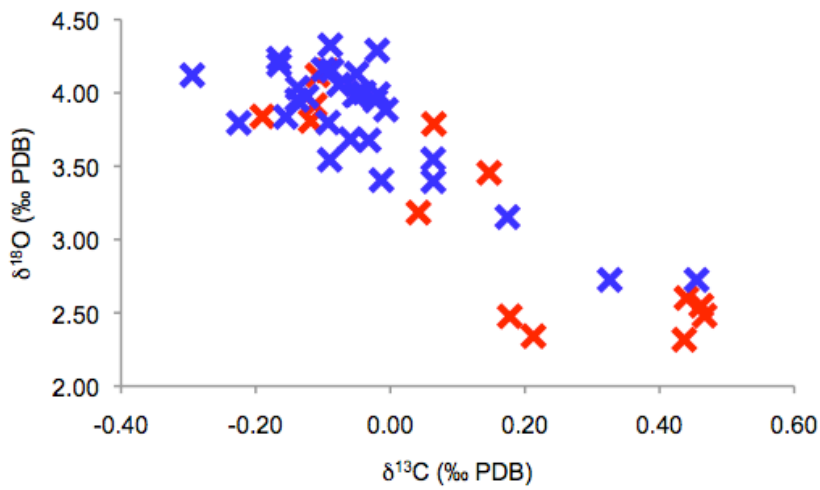


Figure 15: $\delta^{13}C$ versus $\delta^{18}O$ for all individually analyzed *C. wuellerstorfi* from sediment intervals radiocarbon dated to the Late Holocene (red crosses) and LGM (blue crosses).

3.3.2 Depth profiles and time profiles of foraminiferal mass and % > 63 μm

The point of interest in the depth profiles is the difference between data above and data below the thermocline during the LGM and Holocene. Unfortunately, there are too few *G. ruber* mass or % > 63 μm for either time period for any kind of statistical analysis. The depth profiles for Holocene and LGM *G. tumida* test mass are shown in Figure 17. In this case, there are enough measurements to be able to say that according to a one-tailed Student's t-test, LGM-aged *G. tumida* test masses from below 3400 m are significantly lighter than those from above 3400 m ($p = 0.01$).

The time profiles for *G. ruber* mass, *G. tumida* mass, and % > 63 μm are shown in Supplemental Figures 2-4, respectively. The *G. tumida* data and % > 63 μm in several of the cores are similar in that they appear to have a local maximum between 7 and 13 ka (Table 3). Those sediment cores which do not have this peak either have a plateau at the core top of values which are high relative to the rest of the core, or are missing data from this time period. The *G. ruber* test masses also, in several cases, have higher values around 10ka. However, for most of the sediment cores, there is large scatter in the data, and more variability in the age of the local maximum.

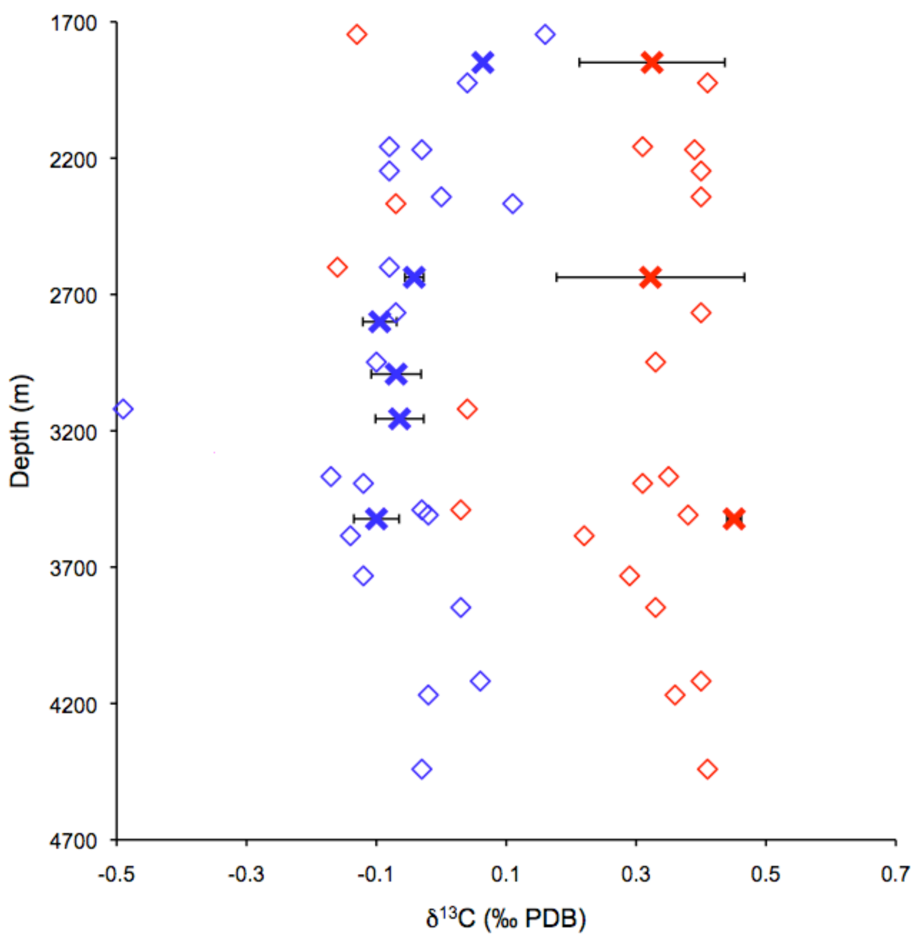


Figure 16: Average *C. wuellerstorfi* $\delta^{13}C$ values from the Late Holocene (red crosses) and LGM (blue crosses), after removal (as described in the text) of probable erroneous data caused by sediment mixing, compared to Holocene (red diamonds) and glacial (blue diamonds) benthic foraminifera $\delta^{13}C$ from Matsumoto et al. (2002). Matsumoto data limited to that from between 20°N to 20°S and 130°E to 170°E. Error bars are the standard error of the mean.

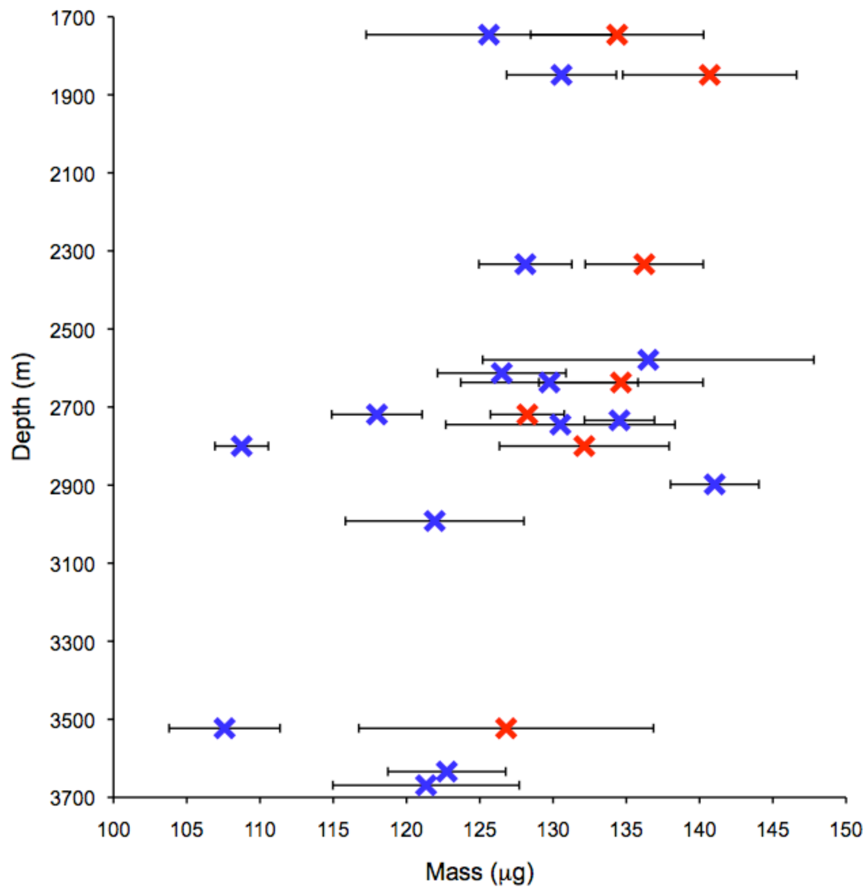


Figure 17: Average masses of *G. tumida* tests. *G. tumida* tests weighed individually, then averaged together from all Holocene (red crosses) and all LGM (blue crosses) sediment intervals from each core. Error bars are the standard error of the mean.

Table 3: Age of sediment interval in each core yielding a maximum value near to 10 ka for *G. tumida* test mass and coarse fraction.

Core	Depth (m)	Age of G. tumida mass maximum (ka)	Age of % > 63 μm maximum (ka)
VM28-235	1746	9.9	9.9
VM24-150	1849	-	7.0
VM28-233	2334	11.2	-
VM34-2	2579	12.5	-
VM24-110	2613	8.0	8.0
VM28-236	2637	10.9	10.9
VM28-234	2719	-	-
RC12-117	2734	-	-
VM28-246	2745	-	-
GGC-49	2800	4.9	-
VM28-213	2898	-	-
VM28-230	2992	9.8	13.1
RC17-176	3156	-	10.0
VM19-110	3523	7.0	-
VM28-227	3634	-	12.4
VM28-229	3669	7.0	7.1

3.4 Discussion

Given the mechanisms for moving CO_2 in and out of the deep ocean, I expected to see a pulse of enhanced preservation during the deglaciation, possibly some difference between the glacial lysocline depth and Holocene lysocline depth, and a change in the $\delta^{13}C$ values of benthic foraminifera between the LGM and Holocene as the partitioning of old, corrosive AABW between the Pacific and Atlantic changed.

3.4.1 Differences between the Holocene and LGM

Although there is a clear difference between LGM and Holocene benthic $\delta^{13}C$ values (Figure 14), the large error and low number of data for the Holocene values means that it is difficult to give a value to the offset between the two sets of data. Lighter $\delta^{13}C$ values are expected for the LGM data, due to a whole Pacific ocean $\delta^{13}C$ change of 0.3‰

caused by changes in terrestrial carbon storage (Curry et al., 1988), and this data is certainly consistent with that change. Unfortunately, it is impossible quantify any additional change in this data set which might be caused by changes in deep water flow. Specifically, it is impossible to determine if there is any change in the boundary between shallower and deeper water masses, so any change in my Pacific values for benthic $\delta^{13}C$ can be attributed to either an increased intrusion of AABW which has a decreased $\delta^{13}C$ due to it's age, or to an overall change $\delta^{13}C$ in the Pacific.

Of the dissolution indexes for the LGM and Holocene, only the LGM *G. tumida* test mass set of data was large enough to analyze. The tests from beneath 3400 m are significantly lighter than those from above 3400 m, indicating that the lysocline sits somewhere between these two populations. However, there is a gap in the data between 2992 m and 3523 m, meaning that a shoaling of the lysocline during the LGM of even several hundred meters would not be detectable by this data.

3.4.2 Preservation during the deglacial

Given the mechanisms for moving CO_2 in and out of the deep ocean, I expected to see a pulse of enhanced preservation during the deglaciation. Although *G. ruber* mass data are difficult to interpret, there is a definite increase in average mass for *G. tumida* tests and in coarse fraction values during the last deglacation, between 7 and 13 ka (Table 3). This is indicative of the predicted preservation spike, discussed above. Decreased fragmentation of calcite tests, and decreased mass loss of *G. tumida* tests is consistent with a movement of CO_2 out of the deep ocean via a slow down of the biological soft tissue pump and increased ventilation of the deep ocean associated with the climate transition from glacial to interglacial. The lack of pattern in the *G. ruber* data may be to do with the fragility of that species. The decrease in dissolution which the *G. tumida* and coarse fraction data indicate may not be enough to prevent fragmentation of *G. ruber* tests. That is, since *G. ruber* are the more fragile species, they should be the last species to show evidence of preservation. Additionally, the low sedimentation rates in this part of the ocean mean that *G. ruber* tests which did not fragment during the preservation event remain in the mixed layer of sediment and fragment after the event passes.

3.5 Conclusion

Significant gaps in this data set mean that I have been unable to make any real inferences about changes in the lysocline or deep water flow between the Holocene and LGM. *G. tumida* test mass data suggests that the lysocline was constrained between 3000 and 3500 m during the LGM. This is a large depth range, and one which the lysocline currently occupies in the western tropical Pacific. Benthic $\delta^{13}C$ from the Holocene and LGM are consistent with a Pacific-wide 0.3‰ change during the LGM, and the Holocene data are also largely consistent with that of Matsumoto et al. (2002), although the large error on my Holocene data make it impossible to say anything about changes in deep Pacific $\delta^{13}C$ values beyond that.

The dissolution indexes *G. tumida* test mass and % > 63 μm both indicate a temporary increase in preservation in the tropical Pacific between 7 and 13 ka. This preservation spike is predicted by theories which suggest that during the glacial-interglacial cycle, CO_2 moves into and out of the deep ocean, and that glacial-interglacial changes in atmospheric CO_2 are modulated by carbonate compensation.

APPENDIX A

SUPPLEMENTAL TABLES AND FIGURES

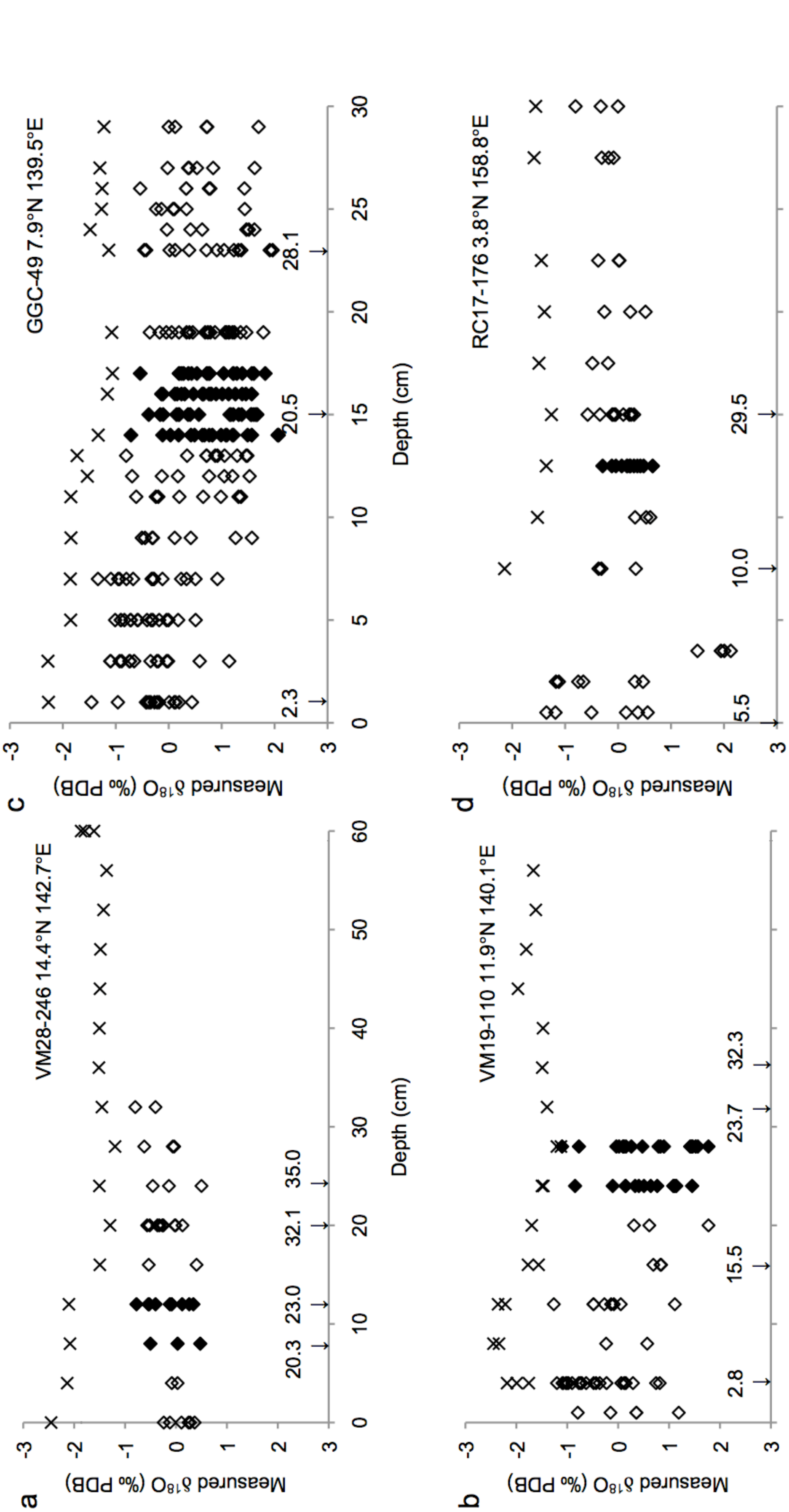
Supplemental Table 1: Statistical data for *G. tumida* $\delta^{18}O$ data from Late Holocene-dated intervals.

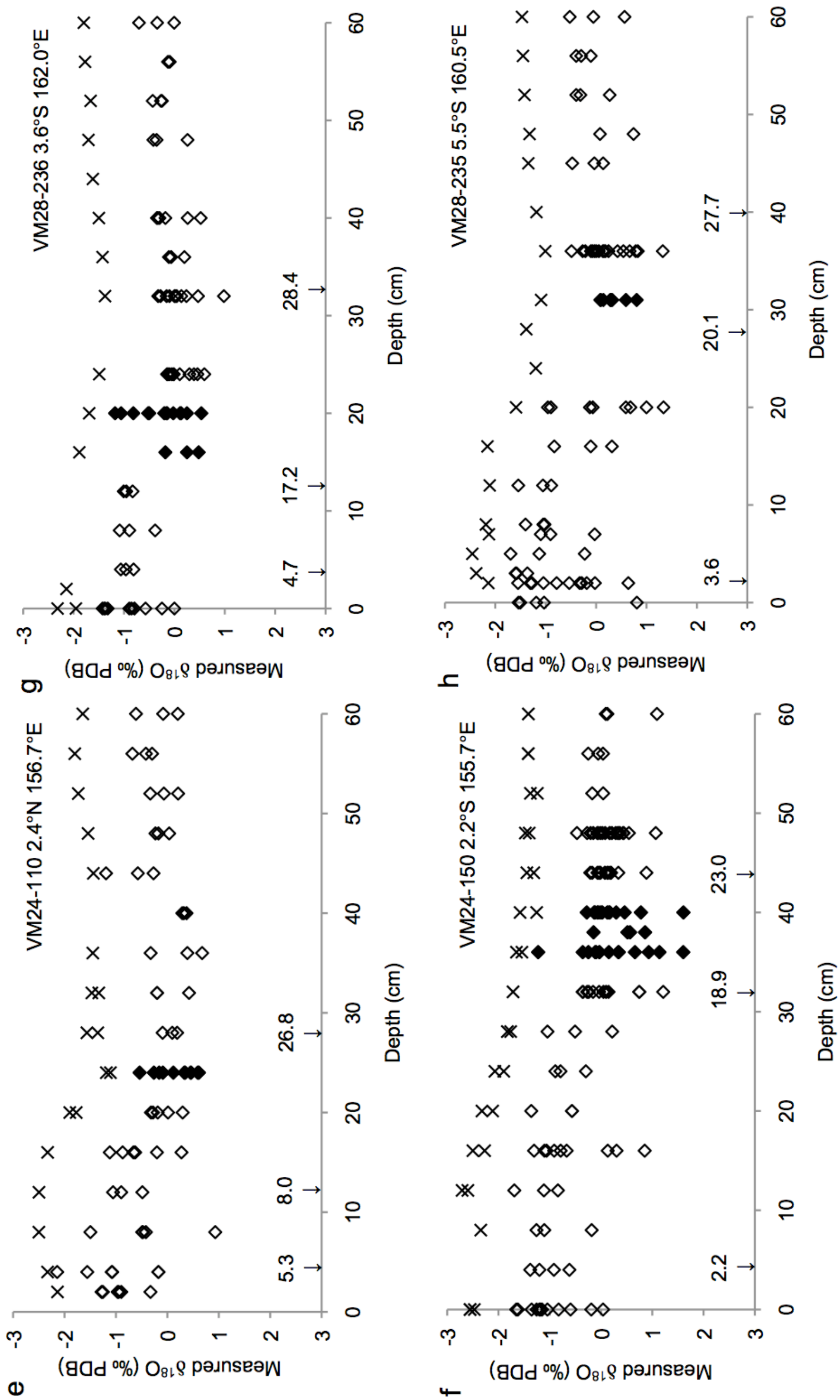
Core	Latitude	Minimum	First Quartile	Median	Third Quartile	Maximum	Skewness
VM19-110	11.9	-1.2	-0.79	-0.43	0.15	1.19	0.6
GGC-49	7.9	-2.22	-1.12	-0.42	-0.24	0.13	-0.98
VM24-150	-2.2	-1.65	-1.26	-1.18	-0.62	0.04	0.84
VM28-236	-3.6	-1.43	-1.38	-1.19	-0.82	0	1.11
VM28-235	-5.5	-1.55	-1.28	-0.76	-0.26	0.81	0.65
VM28-233	-6.3	-1.5	-1.18	-0.99	-0.85	-0.55	0.06
VM28-234	-7.1	-2.22	-1.29	-1.04	-0.86	-0.22	-0.56

Supplemental Table 2: Statistical data for *G. tumida* $\delta^{18}O$ data from LGM-dated intervals.

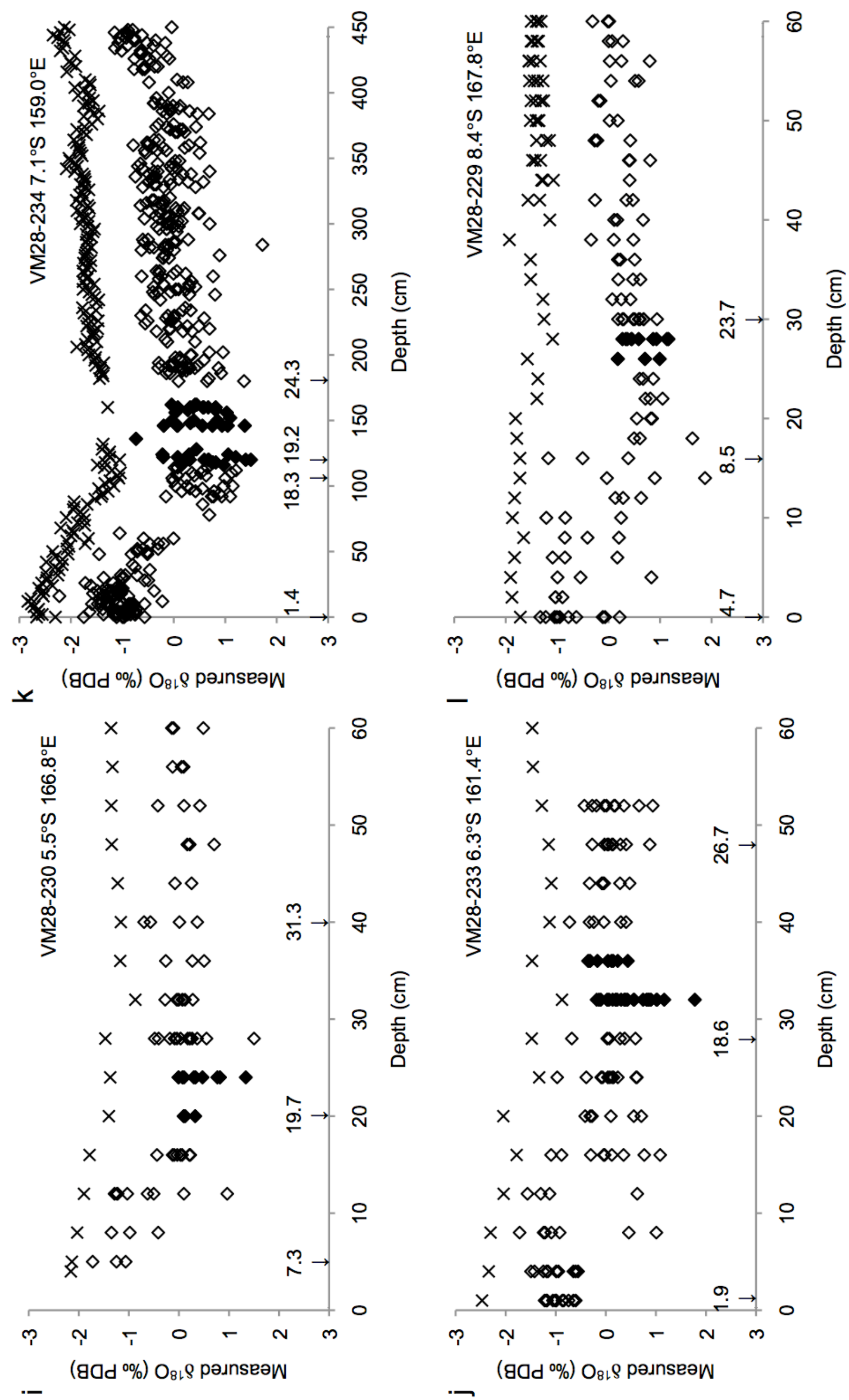
Core	Latitude	Minimum	First Quartile	Median	Third Quartile	Maximum	Skewness
VM28-246	14.4	-0.78	-0.5	-0.12	0.12	0.48	-0.01
VM19-110	11.9	-1.1	0.13	0.51	1.13	1.77	-0.38
GGC-49	7.9	-0.71	0.28	0.77	1.27	2.08	-0.1
VM24-110	2.4	-0.54	-0.11	0.34	0.49	0.61	-0.7
VM24-150	-2.2	-1.23	-0.12	0.03	0.49	1.61	0.61
VM28-236	-3.6	-1.18	-0.5	-0.16	0.13	0.53	-0.61
VM28-235	-5.5	0.08	0.13	0.29	0.39	0.81	1.12
VM28-230	-5.5	-0.01	0.09	0.3	0.47	1.34	1.42
VM28-233	-6.3	-0.35	0.05	0.24	0.65	1.78	0.81
VM28-234	-7.1	-0.73	0.18	0.56	0.82	1.5	-0.14
VM28-229	-8.4	0.18	0.36	0.58	0.93	1.16	0.25
VM28-227	-10.7	-0.07	0.42	0.76	0.98	1.52	-0.03
RC12-117	-14.9	-0.83	0.13	0.29	0.46	0.78	-1.2
VM34-2	-17.7	0.35	0.63	0.72	0.91	1.28	0.49

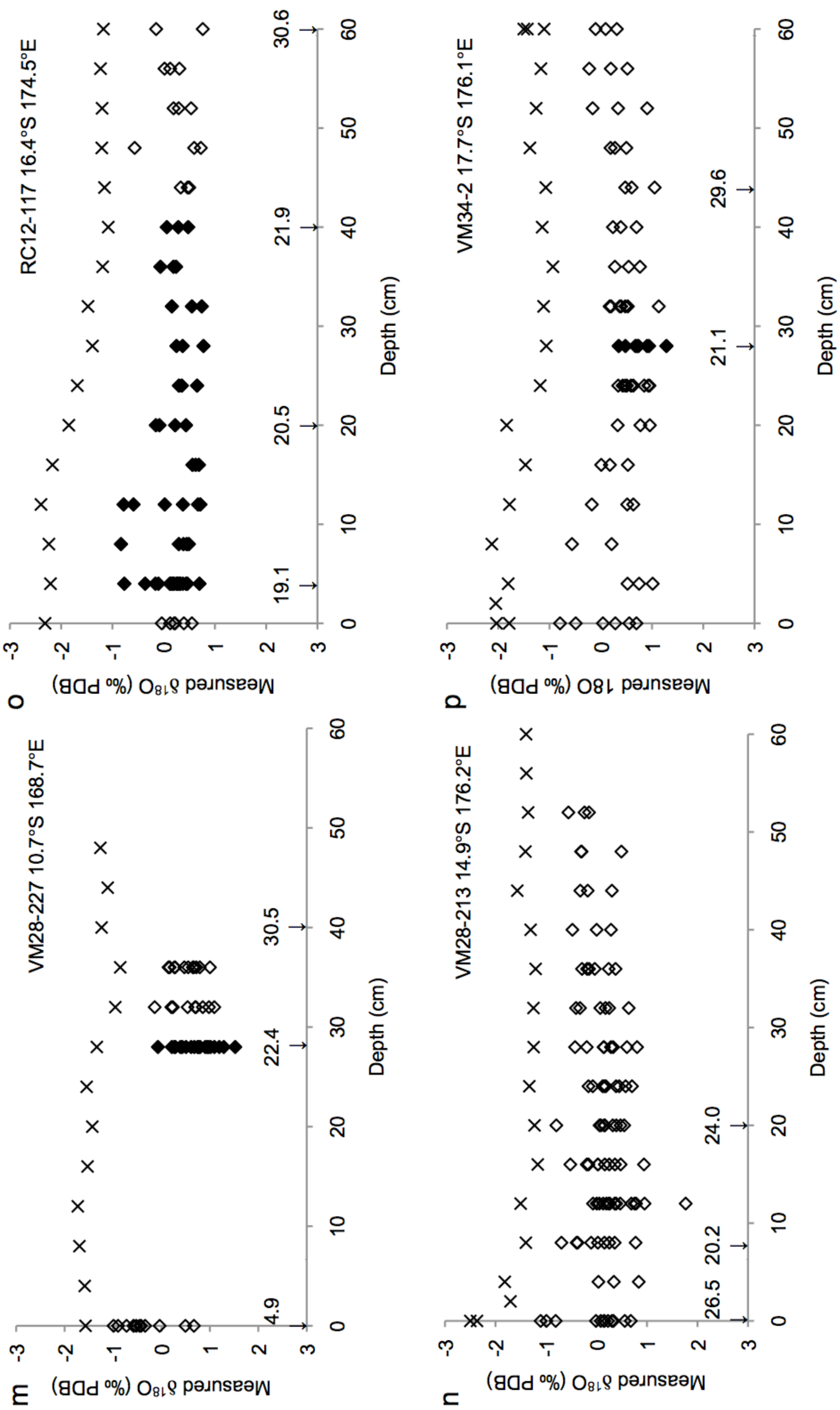
Supplemental Figure 1 (following pages): *G. ruber* $\delta^{18}O$ (crosses) and individual *G. tumida* $\delta^{18}O$ (diamonds) versus depth into sediment of all sediment cores used in this study. Numbers with arrows represent radiocarbon dates converted to calendar age (ka) at given depth. Radiocarbon dates corrected as described in text. (a) VM28-246, 14.4°N 142.7°E (b) VM19-110, 11.9°N 140.1°E (c) GGC-49, 7.9°N 139.5°E (d) RC17-176, 3.8°N 158.8°E (e) VM24-110, 2.4°N 156.7°E (f) VM24-150, 2.2°S 155.7°E (g) VM28-236, 3.6°S 162.0°E (h) VM28-235, 5.5°S 160.5°E (i) VM28-230, 5.5°S 166.8°E (j) VM28-233, 6.3°S 161.4°E (k) VM28-234, 7.1°S 159°E (l) VM28-229, 8.4°S 167.8°E (m) VM28-227, 10.7° S 168.7° E (n) VM28-213, 14.9°S 176.2°E (o) RC12-117, 16.4°S 174.5°E (p) VM34-2, 17.7°S 176.1°E.


a
VM28-246 14.4°N 142.7°E
Measured δ18O (‰ PDB)
Depth (cm)
20.3
23.0
32.1
35.0
b
VM19-110 11.9°N 140.1°E
Measured δ18O (‰ PDB)
Depth (cm)
2.8
15.5
23.7
32.3
c
GGC-49 7.9°N 139.5°E
Measured δ18O (‰ PDB)
Depth (cm)
2.3
20.5
28.1
d
RC17-176 3.8°N 158.8°E
Measured δ18O (‰ PDB)
Depth (cm)
5.5
10.0
29.5

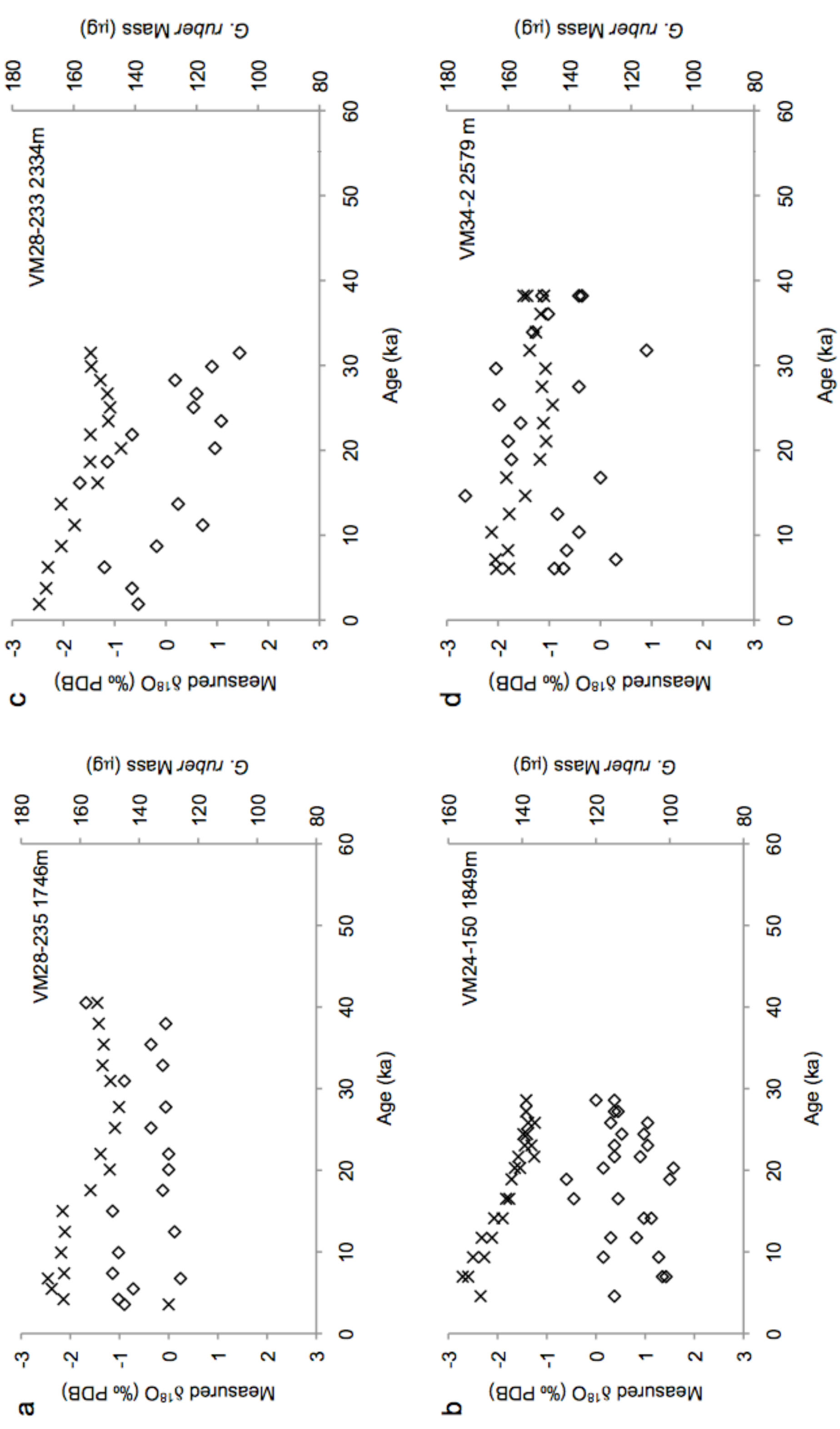


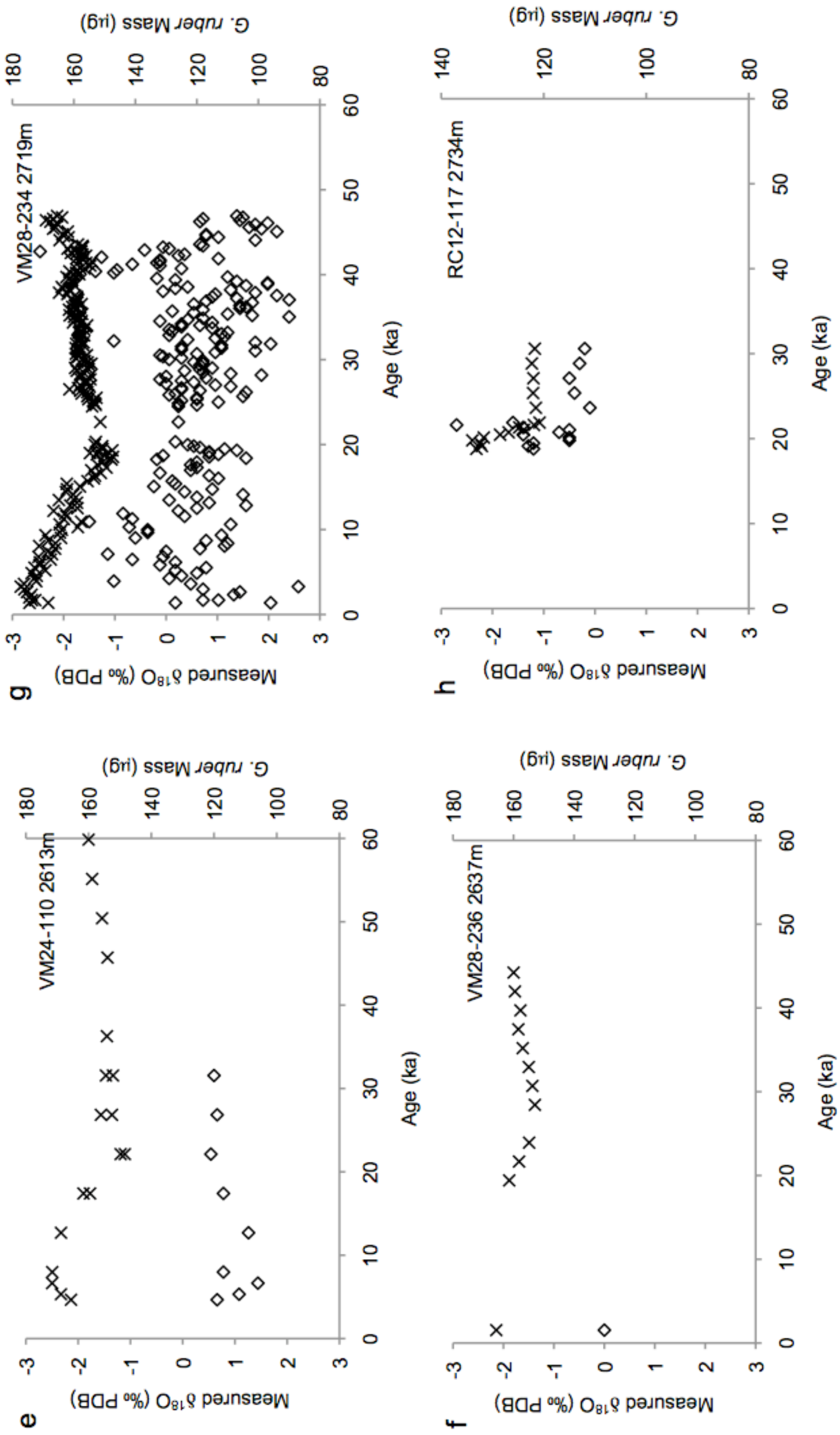
e
VM24-110 2.4°N 156.7°E
f
VM24-150 2.2°S 155.7°E
g
VM28-236 3.6°S 162.0°E
h
VM28-235 5.5°S 160.5°E
Measured δ18O (‰ PDB)
Depth (cm)
5.3
8.0
26.8
2.2
18.9
23.0
4.7
17.2
28.4
3.6
20.1
27.7


i
VM28-230 5.5°S 166.8°E
Measured δ18O (‰ PDB)
Depth (cm)
7.3
19.7
31.3
j
VM28-233 6.3°S 161.4°E
Measured δ18O (‰ PDB)
Depth (cm)
1.9
18.6
26.7
k
VM28-234 7.1°S 159.0°E
Measured δ18O (‰ PDB)
Depth (cm)
1.4
18.3
19.2
24.3
l
VM28-229 8.4°S 167.8°E
Measured δ18O (‰ PDB)
Depth (cm)
4.7
8.5
23.7

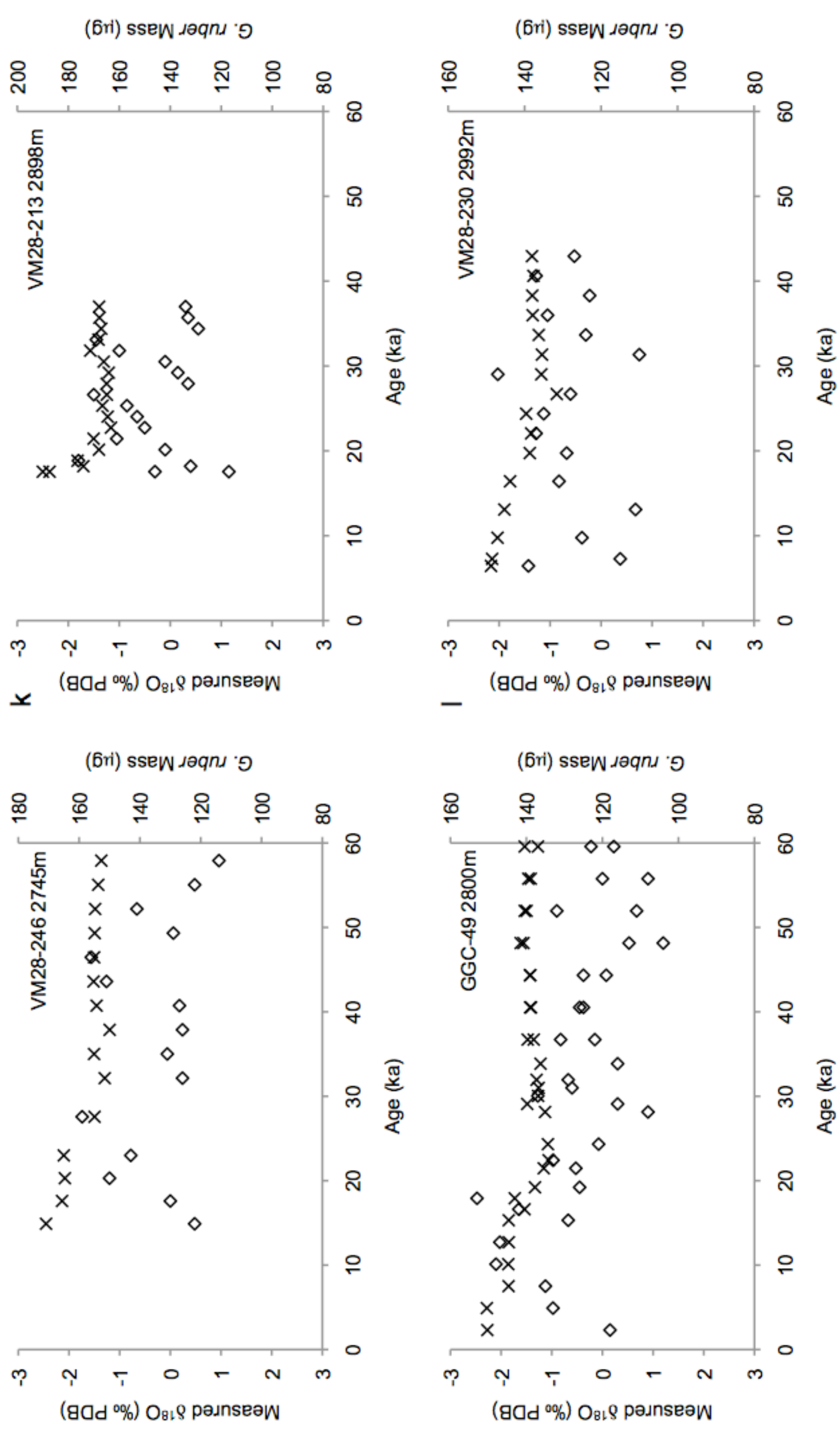

m
VM28-227 10.7°S 168.7°E
Measured δ18O (‰ PDB)
Depth (cm)
4.9
22.4
30.5
n
VM28-213 14.9°S 176.2°E
Measured δ18O (‰ PDB)
Depth (cm)
26.5
20.2
24.0
o
RC12-117 16.4°S 174.5°E
Measured δ18O (‰ PDB)
Depth (cm)
19.1
20.5
21.9
30.6
p
VM34-2 17.7°S 176.1°E
Measured 18O (‰ PDB)
Depth (cm)
21.1
29.6

Supplemental Figure 2 (following pages): *G. ruber* $\delta^{18}O$ (crosses) and masses of *G. ruber* weighed in groups of ten from the 250-355 μm size interval (open crosses) from different sediment cores. The age model used here is a linear extrapolation between the *G. tumida* radiocarbon dates shown in Supplemental Figure 1, and *G. ruber* $\delta^{18}O$ data are generated as discussed in chapter one. (a) VM28-235, 1746 m (b) VM24-150, 1849 m (c) VM28-233, 2334 m (d) VM34-2, 2579 m (e) VM24-110, 2613 m (f) VM28-236, 2637 m (g) VM28-234, 2719 m (h) RC12-117, 2734 m (i) VM28-246, 2745 m (j) GGC-49, 2800 m (k) VM28-213, 2898 m (l) VM28-230, 2992 m (m) RC17-176, 3156 m (n) VM19-110, 3523 m (o) VM28-227, 3634 m (p) VM28-229, 3669 m.

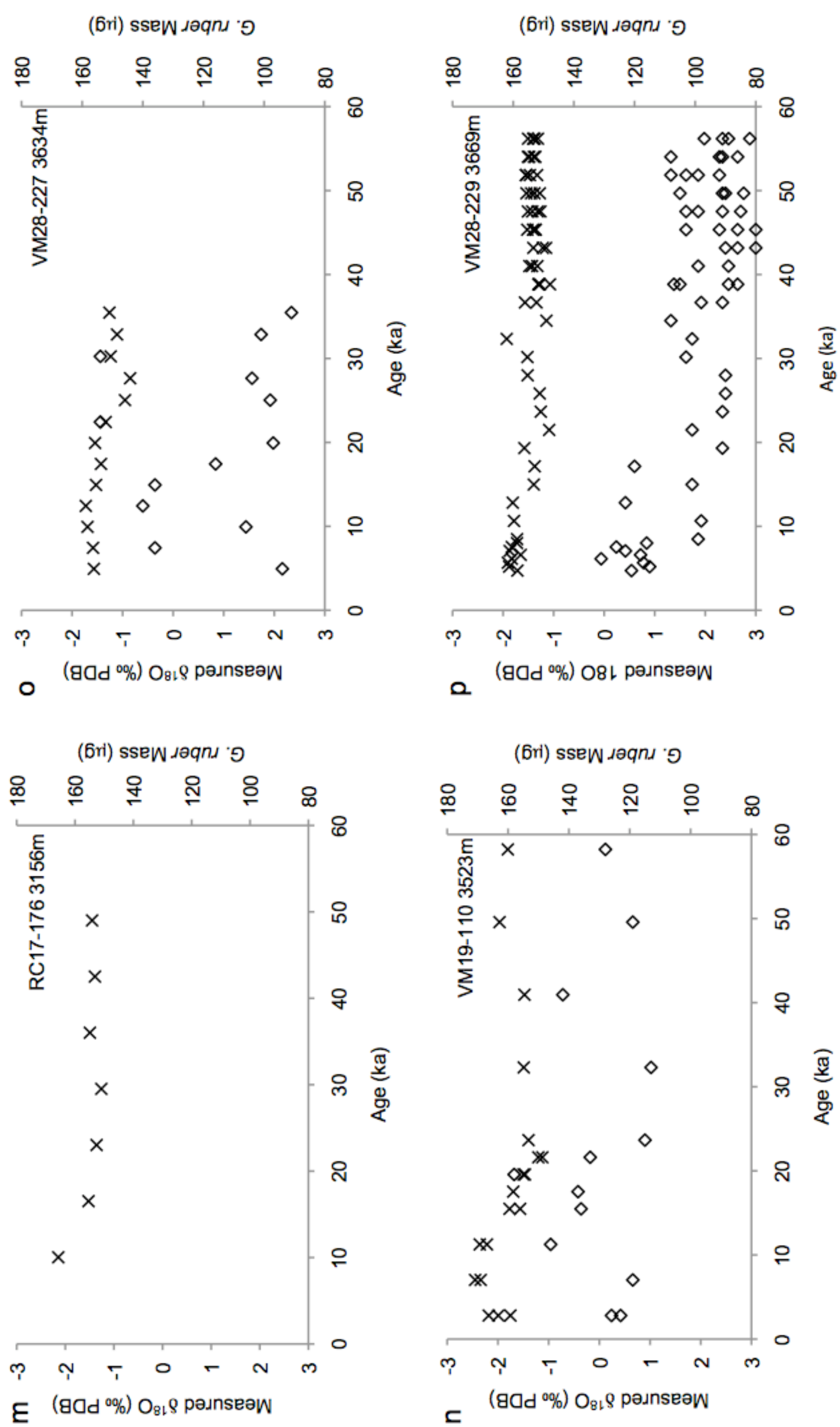

a
VM28-235 1746m
b
VM24-150 1849m
c
VM28-233 2334m
d
VM34-2 2579 m
Measured δ18O (‰ PDB)
G. ruber Mass (µg)
Age (ka)



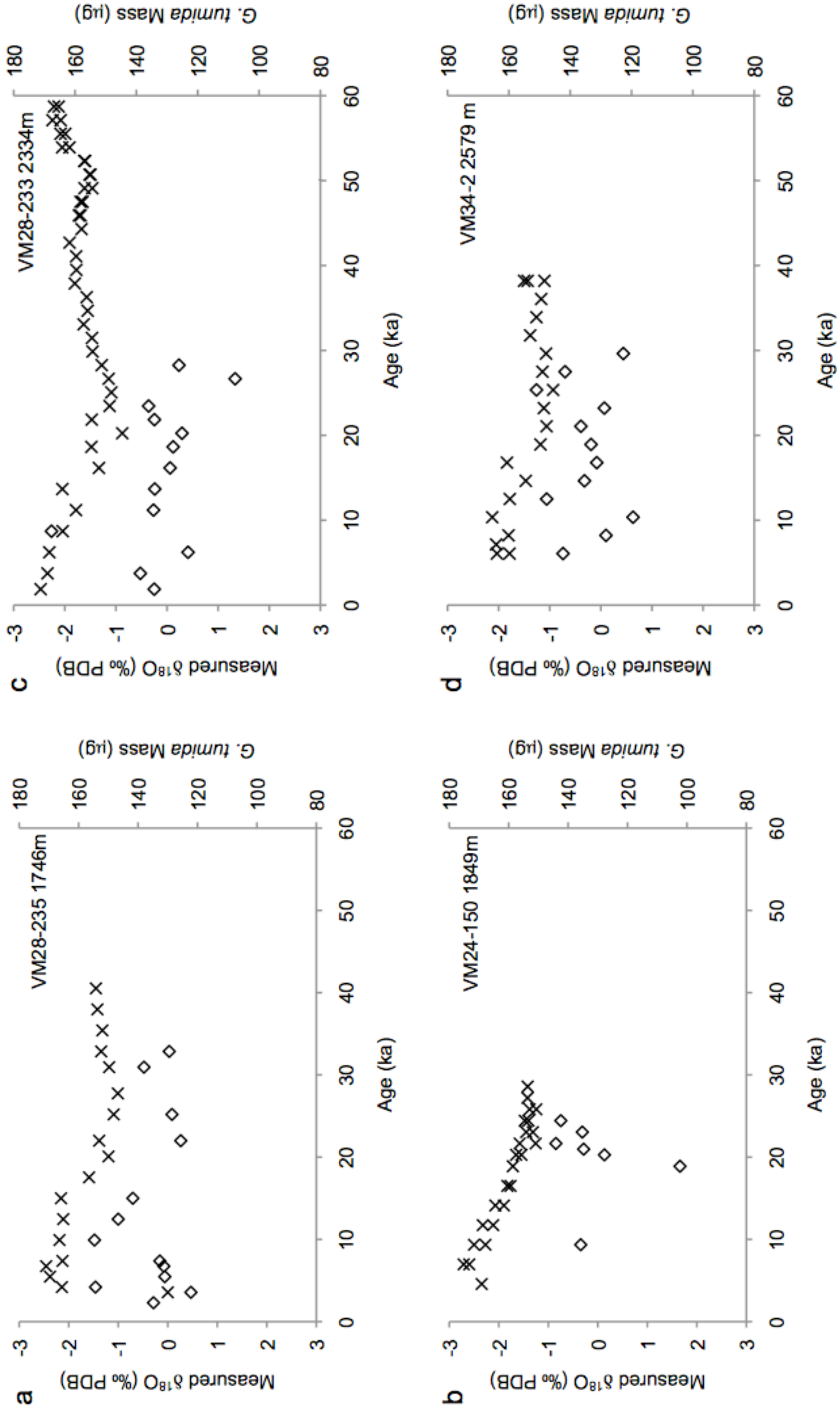
e
VM24-110 2613m
f
VM28-236 2637m
g
VM28-234 2719m
h
RC12-117 2734m
Age (ka)
Measured δ18O (‰ PDB)
G. ruber Mass (μg)

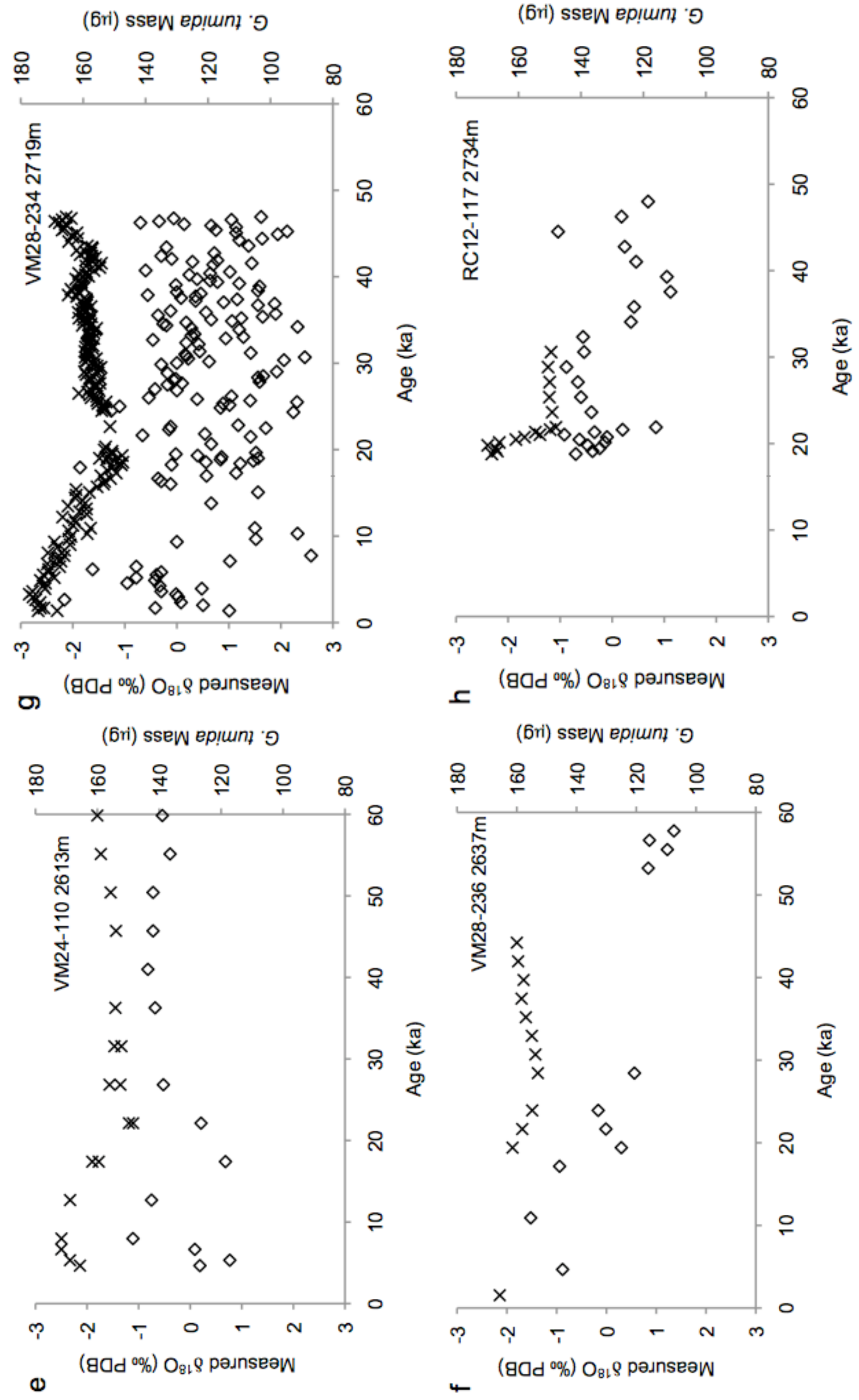


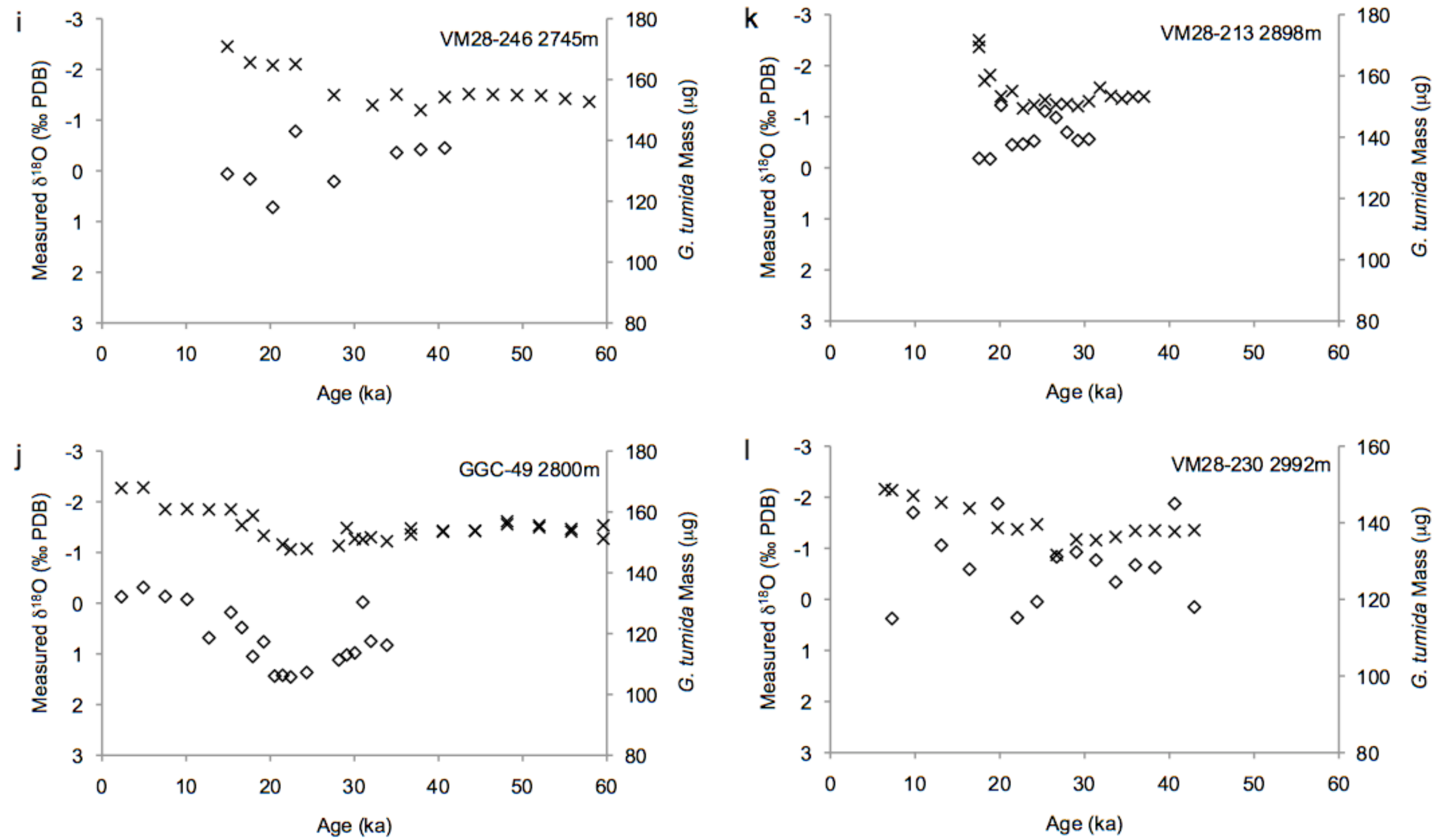
i
VM28-246 2745m
j
GGC-49 2800m
k
VM28-213 2898m
l
VM28-230 2992m
Measured δ18O (‰ PDB)
G. ruber Mass (μg)
Age (ka)


m
RC17-176 3156m
n
VM19-110 3523m
o
VM28-227 3634m
p
VM28-229 3669m
Measured δ18O (‰ PDB)
Measured 180 (‰ PDB)
G. ruber Mass (μg)
Age (ka)

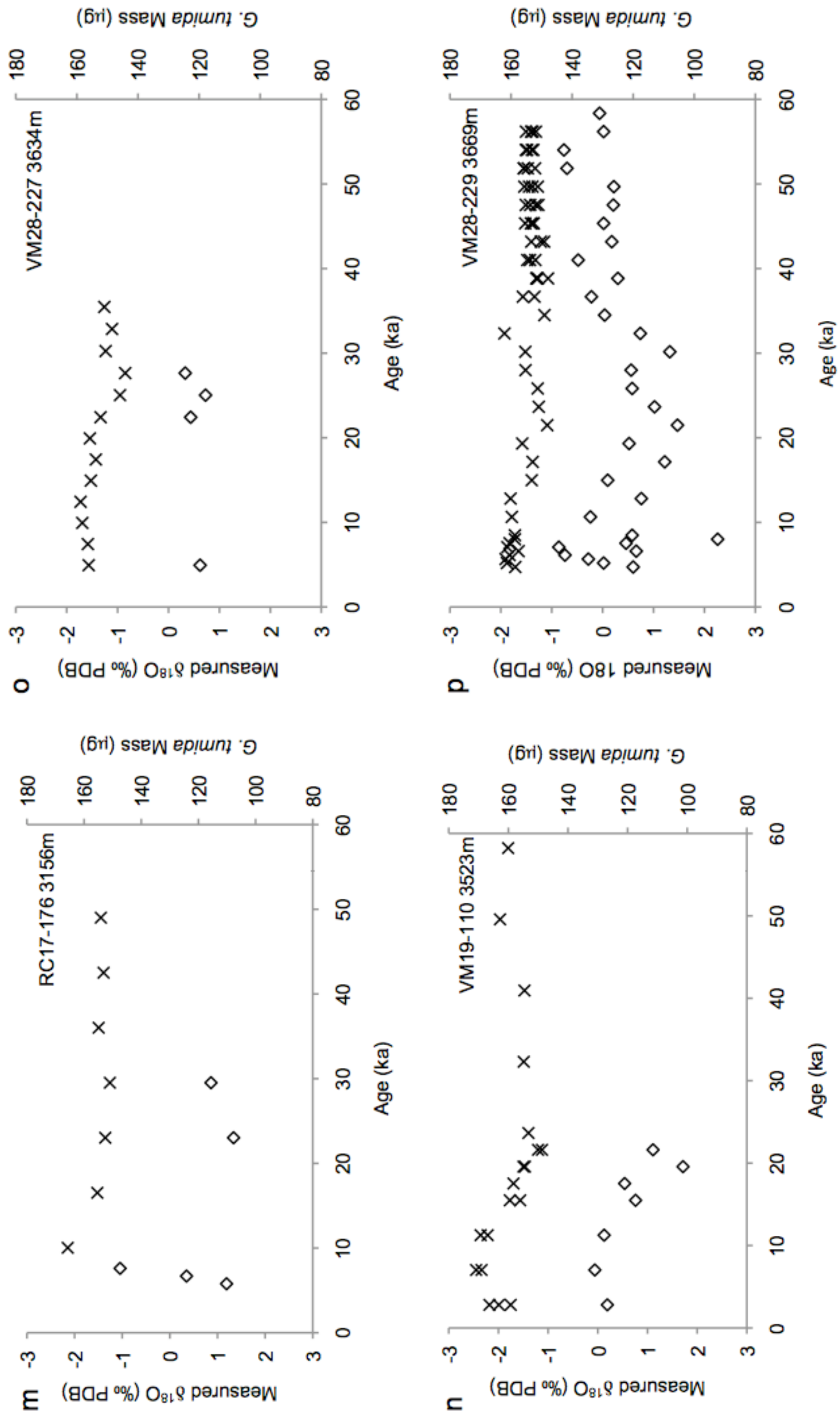
Supplemental Figure 3 (following pages): *G. ruber* $\delta^{18}O$ (crosses) and masses of *G. tumida* tests (open diamonds). The tests are weighed individually from the 425-500 μm size interval and the values from each sediment interval are averaged together. Ages and $\delta^{18}O$ as described in Supplemental Figure 2. (a) VM28-235, 1746 m (b) VM24-150, 1849 m (c) VM28-233, 2334 m (d) VM34-2, 2579 m (e) VM24-110, 2613 m (f) VM28-236, 2637 m (g) VM28-234, 2719 m (h) RC12-117, 2734 m (i) VM28-246, 2745 m (j) GGC-49, 2800 m (k) VM28-213, 2898 m (l) VM28-230, 2992 m (m) RC17-176, 3156 m (n) VM19-110, 3523 m (o) VM28-227, 3634 m (p) VM28-229, 3669 m.


a
VM28-235 1746m
b
VM24-150 1849m
c
VM28-233 2334m
d
VM34-2 2579 m
Measured δ18O (‰ PDB)
Age (ka)
G. tumida Mass (µg)


e
VM24-110 2613m
f
VM28-236 2637m
g
VM28-234 2719m
h
RC12-117 2734m
Measured δ18O (‰ PDB)
G. tumida Mass (μg)
Age (ka)

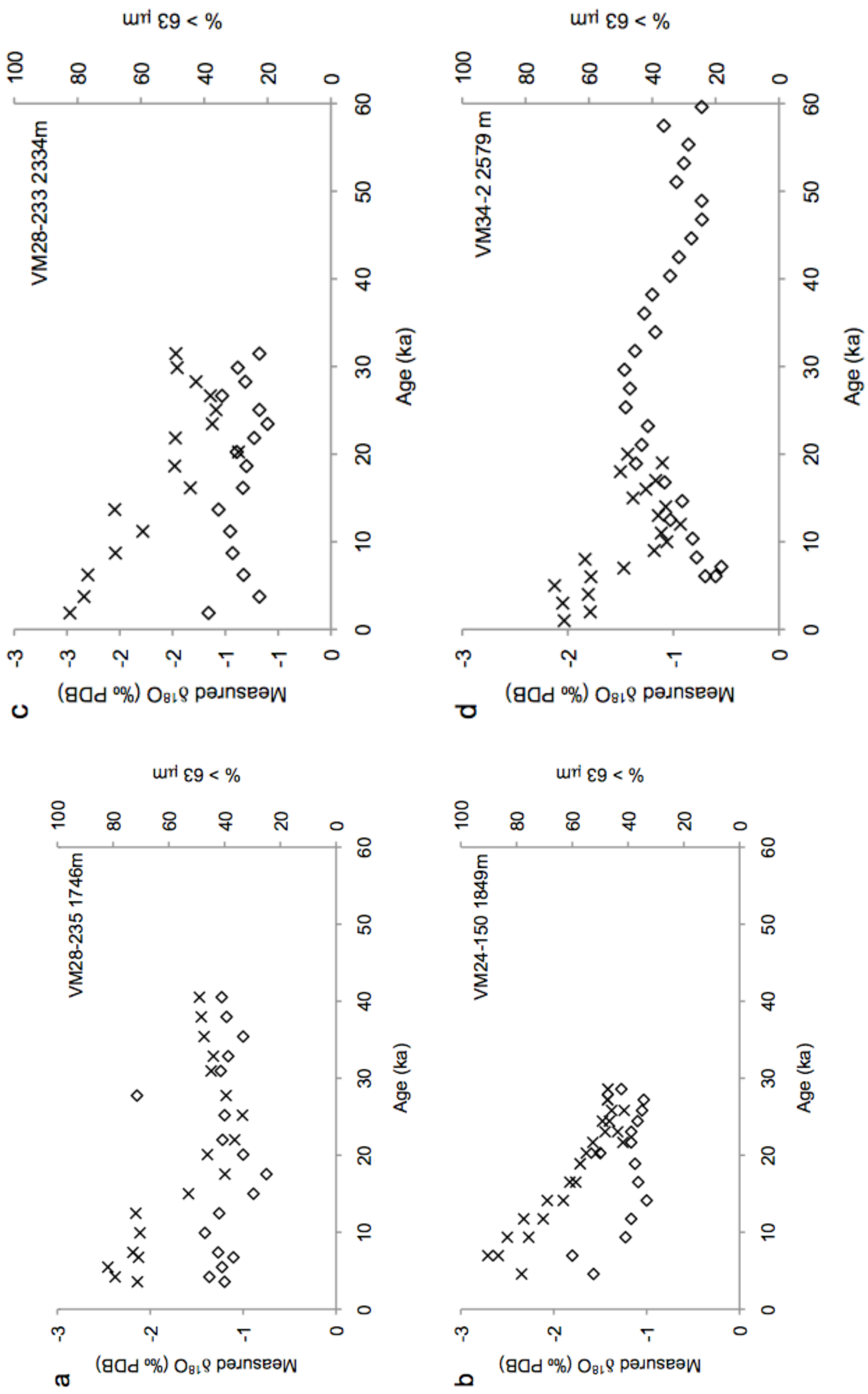


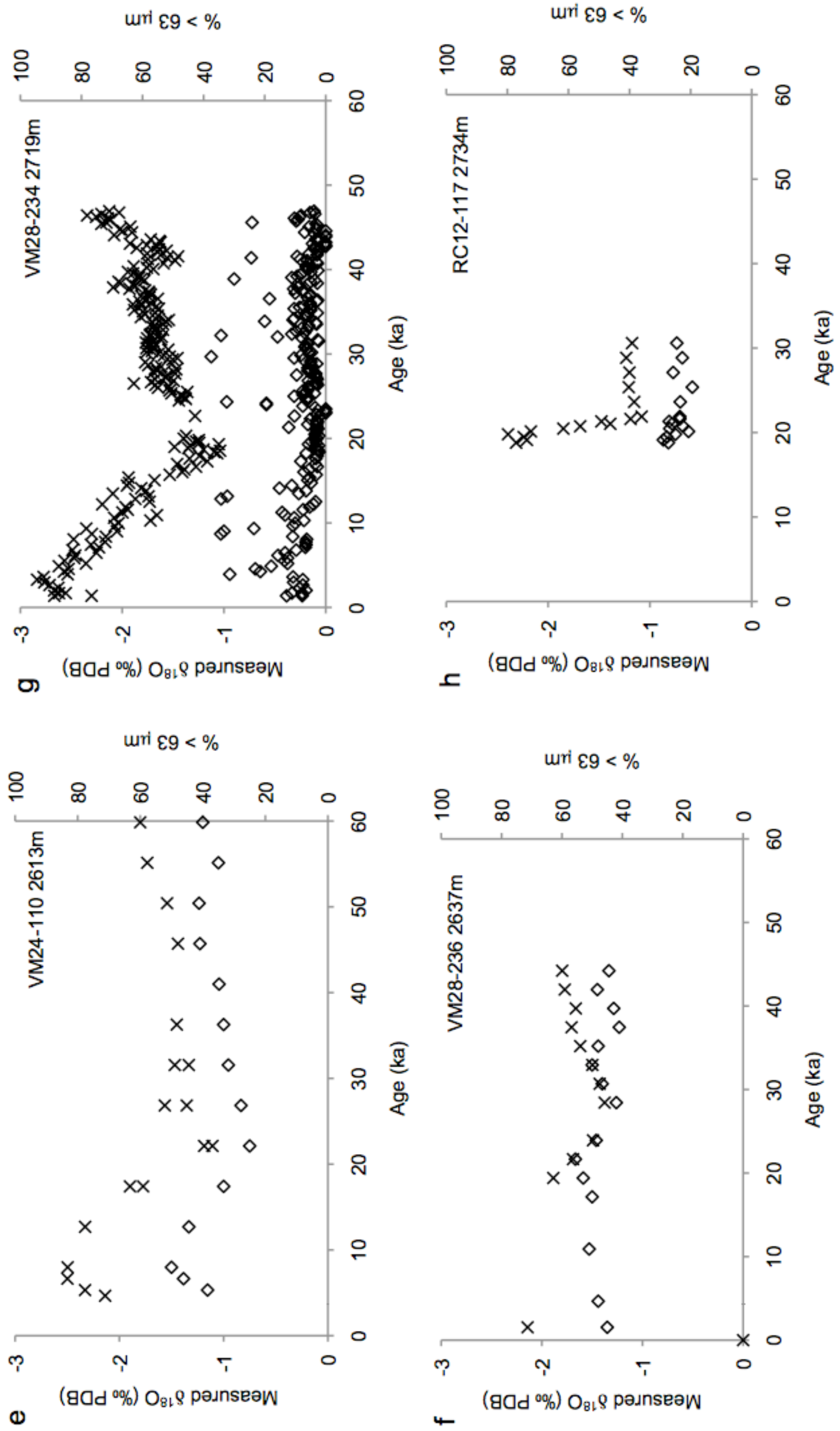
i
VM28-246 2745m
k
VM28-213 2898m
j
GGC-49 2800m
l
VM28-230 2992m
Measured δ18O (‰ PDB)
G. tumida Mass (µg)
Age (ka)

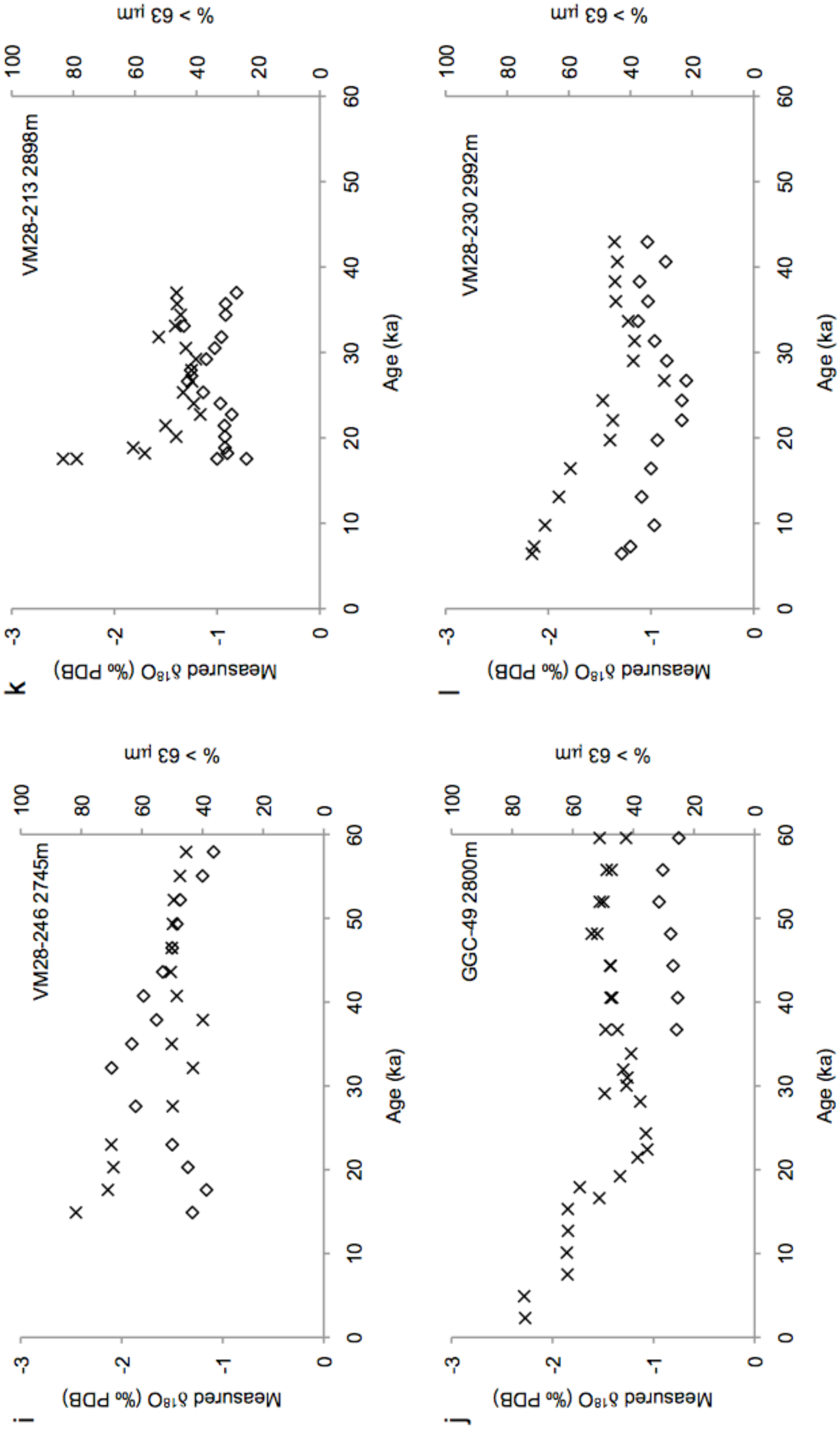


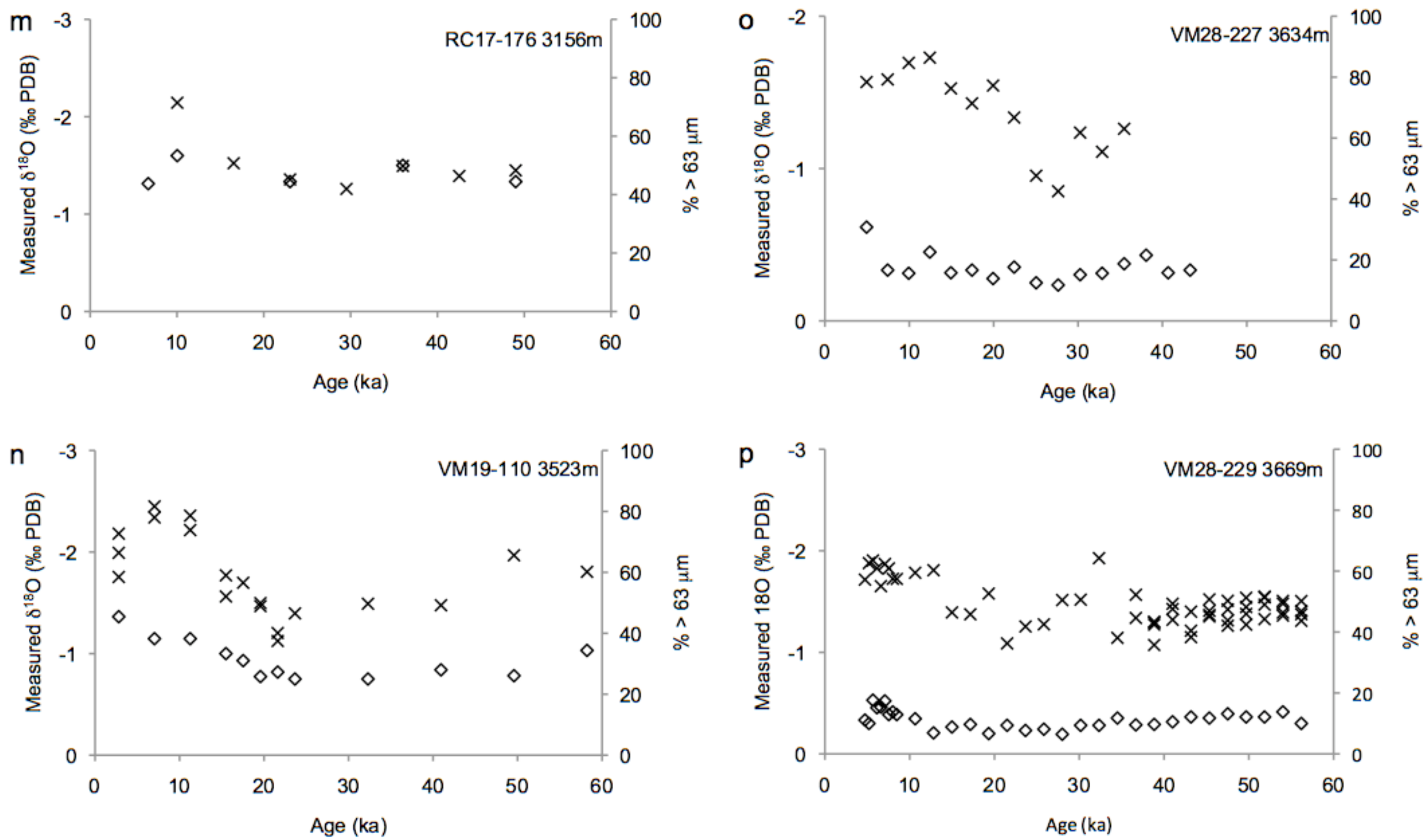
m
RC17-176 3156m
n
VM19-110 3523m
o
VM28-227 3634m
p
VM28-229 3669m
Measured δ18O (‰ PDB)
Measured 180 (‰ PDB)
G. tumida Mass (μg)
Age (ka)

Supplemental Figure 4 (following pages): *G. ruber* $\delta^{18}O$ (crosses) and % > 63 μm (open diamonds) versus depth for entire cores. Ages and $\delta^{18}O$ as described in Supplemental Figure 2. (a) VM28-235, 1746 m (b) VM24-150, 1849 m (c) VM28-233, 2334 m (d) VM34-2, 2579 m (e) VM24-110, 2613 m (f) VM28-236, 2637 m (g) VM28-234, 2719 m (h) RC12-117, 2734 m (i) VM28-246, 2745 m (j) GGC-49, 2800 m (k) VM28-213, 2898 m (l) VM28-230, 2992 m (m) RC17-176, 3156 m (n) VM19-110, 3523 m (o) VM28-227, 3634 m (p) VM28-229, 3669 m.


a
VM28-235 1746m
b
VM24-150 1849m
c
VM28-233 2334m
d
VM34-2 2579 m
Measured δ18O (‰ PDB)
% > 63 µm
Age (ka)


e
VM24-110 2613m
f
VM28-236 2637m
g
VM28-234 2719m
h
RC12-117 2734m
Measured δ18O (‰ PDB)
Age (ka)
% > 63 μm


k
VM28-213 2898m
l
VM28-230 2992m
i
VM28-246 2745m
j
GGC-49 2800m
Measured δ18O (‰ PDB)
% > 63 μm
Age (ka)


m
RC17-176 3156m
Measured δ18O (‰ PDB)
% > 63 µm
Age (ka)
o
VM28-227 3634m
Measured δ18O (‰ PDB)
% > 63 µm
Age (ka)
n
VM19-110 3523m
Measured δ18O (‰ PDB)
% > 63 µm
Age (ka)
p
VM28-229 3669m
Measured 18O (‰ PDB)
% > 63 µm
Age (ka)

APPENDIX B

DATA

Core	Depth (cm)	Species	Size fraction (μg)	#forams	$\delta^{13}C$ (PDB)	$\delta^{18}O$ (PDB)	Mass (μg)	Time slice	Date analysed (YYYY MMDD)
VM28-250	0	*G. tumida*	425-500	1	2.03	0.22	125		20090705
VM28-250	0	*G. tumida*	425-500	1	1.99	0.28	127		20090705
VM28-250	0	*G. tumida*	425-500	1	1.68	-0.41	82		20090705
VM28-250	0	*G. tumida*	425-500	1	1.51	0.08	143		20090705
VM28-250	0	*G. tumida*	425-500	1	1.87	-0.26	145		20090705
VM28-250	0	*G. tumida*	425-500	1	2.55	-0.37	107		20090705
VM28-250	0	*G. tumida*	425-500	1	1.81	-0.01	151		20090705
VM28-250	0	*G. tumida*	425-500	1	2.45	0.51	105		20090705
VM28-250	0	*G. tumida*	425-500	1	2.04	-0.71	96		20090705
VM28-250	0	*G. tumida*	425-500	1	1.62	-0.05	120		20090705
VM28-250	0	*G. tumida*	425-500	1	1.93	-0.58	117		20090705
VM28-250	0	*G. tumida*	425-500	1	2.01	0.34	122		20090705

VM28-250	0	*G. ruber*	250-355	10	1.12	-1.56	157	20090701
VM28-250	4	*G. ruber*	250-355	10	0.80	-1.47	126	20090701
VM28-250	12	*G. ruber*	250-355	10	0.75	-1.52	137	20090701
VM28-250	16	*G. ruber*	250-355	10	0.61	-1.65	148	20090701
VM28-250	20	*G. ruber*	250-355	10	0.78	-1.56	143	20090701
VM28-250	24	*G. ruber*	250-355	10	0.85	-1.47	133	20090701
VM28-250	28	*G. ruber*	250-355	10	0.86	-1.39	148	20090701
VM28-250	32	*G. ruber*	250-355	10	0.95	-1.60	186	20090701
VM28-250	36	*G. ruber*	250-355	10	0.65	-1.59	132	20090701
VM28-250	40	*G. ruber*	250-355	10	1.03	-1.87	134	20090701
VM28-250	44	*G. ruber*	250-355	10	0.82	-2.03	143	20090701
VM28-250	48	*G. ruber*	250-355	10	0.36	-1.95	148	20090701
VM28-250	52	*G. ruber*	250-355	10	0.75	-1.39	117	20090701
VM28-250	56	*G. ruber*	250-355	10	0.48	-1.29	112	20090701
VM28-250	60	*G. ruber*	250-355	10	0.11	-1.31	140	20090701
VM28-246	0	*G. tumida*	425-500	1	2.12	0.25	110	20090705

VM28-246	0	*G. tumida*	425-500	1	1.76	-0.12	118		20090705
VM28-246	0	*G. tumida*	425-500	1	2.52	0.11	149		20090705
VM28-246	0	*G. tumida*	425-500	1	2.18	-0.24	141		20090705
VM28-246	0	*G. tumida*	425-500	1	2.07	0.37	122		20090705
VM28-246	0	*G. tumida*	425-500	1	2.34	0.28	134		20090705
VM28-246	24	*G. tumida*	425-500	1	2.71	-0.46	144		20100503
VM28-246	24	*G. tumida*	425-500	1	2.40	-0.14	155		20100503
VM28-246	24	*G. tumida*	425-500	1	2.12	0.50	109		20100503
VM28-246	16	*G. tumida*	425-500	1	2.43	-0.54	140		20100503
VM28-246	16	*G. tumida*	425-500	1	2.42	0.40	113		20100503
VM28-246	12	*G. tumida*	425-500	1	1.61	0.26	155	LGM	20100503
VM28-246	12	*G. tumida*	425-500	1	2.58	-0.12	154	LGM	20100503
VM28-246	12	*G. tumida*	425-500	1	2.72	-0.12	120	LGM	20100503
VM28-246	8	*G. tumida*	425-500	1	2.63	-0.50	116	LGM	20100503
VM28-246	8	*G. tumida*	425-500	1	2.28	0.03	112	LGM	20100503
VM28-246	8	*G. tumida*	425-500	1	2.21	0.48	126	LGM	20100503

VM28-246	4	*G. tumida*	425-500	1	2.20	0.03	114	20100503
VM28-246	4	*G. tumida*	425-500	1	1.72	-0.08	128	20100503
VM28-246	4	*G. tumida*	425-500	1	2.14	-0.08	140	20100503
VM28-246	28	*G. tumida*	425-500	1	2.49	-0.04	167	20100823
VM28-246	28	*G. tumida*	425-500	1	2.61	-0.62	124	20100823
VM28-246	28	*G. tumida*	425-500	1	2.13	-0.06	120	20100823
VM28-246	32	*G. tumida*	425-500	1	2.64	-0.80	133	20100823
VM28-246	32	*G. tumida*	425-500	1	2.81	-0.40	142	20100823
VM28-246	20	*G. tumida*	425-500	Powder	2.56	-0.25	113	20100916
VM28-246	20	*G. tumida*	425-500	Powder	2.60	-0.52	96	20100916
VM28-246	20	*G. tumida*	425-500	Powder	2.26	-0.27	97	20100916
VM28-246	20	*G. tumida*	425-500	Powder	2.48	-0.33	110	20100916
VM28-246	20	*G. tumida*	425-500	Powder	2.32	-0.01	110	20100916
VM28-246	20	*G. tumida*	425-500	Powder	2.30	-0.02	113	20100916
VM28-246	20	*G. tumida*	425-500	Powder	2.37	0.13	91	20100916
VM28-246	20	*G. tumida*	425-500	Powder	2.26	-0.57	108	20100916

VM28-246	20	*G. tumida*	425-500	Powder	2.38	-0.26	83		20100916
VM28-246	20	*G. tumida*	425-500	Powder	2.27	-0.36	128		20100916
VM28-246	12	*G. tumida*	355-425	1	2.50	-0.53	56	LGM	20110504
VM28-246	12	*G. tumida*	355-425	1	2.56	-0.08	70	LGM	20110504
VM28-246	12	*G. tumida*	355-425	1	2.38	-0.78	78	LGM	20110504
VM28-246	12	*G. tumida*	355-425	1	1.61	-0.54	74	LGM	20110504
VM28-246	12	*G. tumida*	355-425	1	2.45	0.12	85	LGM	20110504
VM28-246	12	*G. tumida*	355-425	1	2.92	-0.40	72	LGM	20110504
VM28-246	12	*G. tumida*	355-425	1	1.82	0.34	99	LGM	20110504
VM28-246	100	*G. tumida*	425-500	1	2.32	-1.03	141	MIS 5e	20120403
VM28-246	100	*G. tumida*	425-500	1	2.21	-1.00	124	MIS 5e	20120403
VM28-246	100	*G. tumida*	425-500	1	2.08	-0.66	141	MIS 5e	20120403
VM28-246	100	*G. tumida*	425-500	1	2.17	-0.80	113	MIS 5e	20120403
VM28-246	104	*G. tumida*	425-500	1	2.62	-0.29	131		20120404
VM28-246	104	*G. tumida*	425-500	1	2.21	-1.09	119		20120404
VM28-246	104	*G. tumida*	425-500	1	2.40	-1.01	97		20120404

VM28-246	104	*G. tumida*	425-500	1	1.80	-0.07	121		20120404
VM28-246	104	*G. tumida*	425-500	1	2.36	-0.71	142		20120404
VM28-246	108	*G. tumida*	425-500	1	1.65	0.11	151	MIS 6	20120404
VM28-246	108	*G. tumida*	425-500	1	2.54	-0.44	125	MIS 6	20120404
VM28-246	108	*G. tumida*	425-500	1	1.91	0.47	148	MIS 6	20120404
VM28-246	108	*G. tumida*	425-500	1	2.53	-0.32	123	MIS 6	20120404
VM28-246	108	*G. tumida*	425-500	1	2.17	1.03	128	MIS 6	20120404
VM28-246	112	*G. tumida*	425-500	1	2.63	-0.03	125	MIS 6	20120404
VM28-246	112	*G. tumida*	425-500	1	2.03	0.26	131	MIS 6	20120404
VM28-246	112	*G. tumida*	425-500	1	2.05	-0.85	119	MIS 6	20120404
VM28-246	112	*G. tumida*	425-500	1	2.35	0.02	151	MIS 6	20120404
VM28-246	112	*G. tumida*	425-500	1	2.22	0.18	129	MIS 6	20120404
VM28-246	116	*G. tumida*	425-500	1	1.63	-0.16	132	MIS 6	20120404
VM28-246	116	*G. tumida*	425-500	1	2.30	0.13	154	MIS 6	20120404
VM28-246	116	*G. tumida*	425-500	1	2.24	-0.47	131	MIS 6	20120404
VM28-246	116	*G. tumida*	425-500	1	1.99	-0.26	153	MIS 6	20120404

VM28-246	116	*G. tumida*	425-500	1	1.93	0.46	138	MIS 6	20120404
VM28-246	120	*G. tumida*	425-500	1	2.19	-0.97	132	MIS 6	20120404
VM28-246	120	*G. tumida*	425-500	1	1.45	-0.37	140	MIS 6	20120404
VM28-246	120	*G. tumida*	425-500	1	2.04	-0.41	127	MIS 6	20120404
VM28-246	120	*G. tumida*	425-500	1	2.04	0.89	125	MIS 6	20120404
VM28-246	124	*G. tumida*	425-500	1	2.08	0.72	116	MIS 6	20120406
VM28-246	124	*G. tumida*	425-500	1	1.82	0.33	157	MIS 6	20120406
VM28-246	124	*G. tumida*	425-500	1	1.81	0.25	148	MIS 6	20120406
VM28-246	124	*G. tumida*	425-500	1	1.67	-0.04	129	MIS 6	20120406
VM28-246	124	*G. tumida*	425-500	1	1.68	0.49	132	MIS 6	20120406
VM28-246	128	*G. tumida*	425-500	1	1.61	0.14	133	MIS 6	20120406
VM28-246	128	*G. tumida*	425-500	1	1.85	0.84	138	MIS 6	20120406
VM28-246	128	*G. tumida*	425-500	1	2.53	-0.04	153	MIS 6	20120406
VM28-246	128	*G. tumida*	425-500	1	2.05	-0.30	149	MIS 6	20120406
VM28-246	128	*G. tumida*	425-500	1	1.81	0.57	131	MIS 6	20120406
VM28-246	132	*G. tumida*	425-500	1	1.52	0.00	137	MIS 6	20120406

VM28-246	132	*G. tumida*	425-500	1	1.91	0.82	133	MIS 6	20120406
VM28-246	132	*G. tumida*	425-500	1	1.86	0.34	137	MIS 6	20120406
VM28-246	132	*G. tumida*	425-500	1	1.50	0.39	148	MIS 6	20120406
VM28-246	132	*G. tumida*	425-500	1	2.14	0.07	137	MIS 6	20120406
VM28-246	136	*G. tumida*	425-500	1	2.24	0.06	116	MIS 6	20120406
VM28-246	136	*G. tumida*	425-500	1	1.94	0.64	112	MIS 6	20120406
VM28-246	136	*G. tumida*	425-500	1	2.10	0.01	127	MIS 6	20120406
VM28-246	136	*G. tumida*	425-500	1	2.07	-0.43	105	MIS 6	20120406
VM28-246	136	*G. tumida*	425-500	1	2.15	-0.11	122	MIS 6	20120406
VM28-246	140	*G. tumida*	425-500	1	1.63	-0.11	125	MIS 6	20120406
VM28-246	140	*G. tumida*	425-500	1	1.98	0.38	145	MIS 6	20120406
VM28-246	140	*G. tumida*	425-500	1	2.33	-0.03	132	MIS 6	20120406
VM28-246	140	*G. tumida*	425-500	1	2.14	0.48	143	MIS 6	20120406
VM28-246	140	*G. tumida*	425-500	1	1.87	0.40	119	MIS 6	20120406
VM28-246	144	*G. tumida*	425-500	1	2.05	0.65	149	MIS 6	20120406
VM28-246	144	*G. tumida*	425-500	1	2.15	0.44	143	MIS 6	20120406

VM28-246	144	*G. tumida*	425-500	1	1.67	0.52	146	MIS 6	20120406
VM28-246	144	*G. tumida*	425-500	1	2.83	-0.23	114	MIS 6	20120406
VM28-246	144	*G. tumida*	425-500	1	2.39	0.11	121	MIS 6	20120406
VM28-246	148	*G. tumida*	425-500	1	1.92	0.48	152	MIS 6	20120406
VM28-246	148	*G. tumida*	425-500	1	1.61	-0.02	114	MIS 6	20120406
VM28-246	148	*G. tumida*	425-500	1	2.46	0.04	106	MIS 6	20120406
VM28-246	148	*G. tumida*	425-500	1	2.05	-0.01	118	MIS 6	20120406
VM28-246	200	*G. tumida*	425-500	1	2.45	-0.57	124		20120419
VM28-246	200	*G. tumida*	425-500	1	1.94	0.56	122		20120419
VM28-246	200	*G. tumida*	425-500	1	2.39	-0.27	109		20120419
VM28-246	200	*G. tumida*	425-500	1	2.19	-0.54	84		20120419
VM28-246	200	*G. tumida*	425-500	1	2.12	0.61	112		20120419
VM28-246	204	*G. tumida*	425-500	1	2.39	0.13	131		20120419
VM28-246	204	*G. tumida*	425-500	1	2.03	-0.53	106		20120419
VM28-246	204	*G. tumida*	425-500	1	2.32	-0.79	113		20120419
VM28-246	204	*G. tumida*	425-500	1	2.19	-1.07	94		20120419

VM28-246	204	*G. tumida*	425-500	1	1.98	-1.17	119	20120419
VM28-246	208	*G. tumida*	425-500	1	2.29	-1.19	134	20120419
VM28-246	208	*G. tumida*	425-500	1	2.22	-0.50	112	20120419
VM28-246	208	*G. tumida*	425-500	1	2.72	-0.96	106	20120419
VM28-246	208	*G. tumida*	425-500	1	2.37	-0.65	106	20120419
VM28-246	208	*G. tumida*	425-500	1	2.24	-0.55	108	20120419
VM28-246	216	*G. tumida*	425-500	1	2.12	-0.63	112	20120419
VM28-246	216	*G. tumida*	425-500	1	2.16	-0.36	98	20120419
VM28-246	212	*G. tumida*	425-500	1	2.15	-0.40	92	20120419
VM28-246	212	*G. tumida*	425-500	1	2.18	-0.78	97	20120419
VM28-246	212	*G. tumida*	425-500	1	2.18	-0.40	92	20120419
VM28-246	212	*G. tumida*	425-500	1	1.63	0.23	105	20120419
VM28-246	212	*G. tumida*	425-500	1	2.06	-0.95	93	20120419
VM28-246	216	*G. tumida*	425-500	1	2.48	0.22	106	20120419
VM28-246	216	*G. tumida*	425-500	1	2.22	-1.02	82	20120419
VM28-246	216	*G. tumida*	425-500	1	1.83	-0.40	138	20120419

VM28-246	0	*G. ruber*	250-355	10	0.96	-2.45	122		20090701
VM28-246	4	*G. ruber*	250-355	10	0.91	-2.14	130		20090701
VM28-246	8	*G. ruber*	250-355	10	1.00	-2.08	150	LGM	20090701
VM28-246	12	*G. ruber*	250-355	10	0.72	-2.10	143	LGM	20090701
VM28-246	16	*G. ruber*	250-355	10	0.71	-1.50	159		20090701
VM28-246	20	*G. ruber*	250-355	10	0.73	-1.29	126		20090701
VM28-246	24	*G. ruber*	250-355	10	0.73	-1.50	131		20090701
VM28-246	28	*G. ruber*	250-355	10	0.89	-1.20	126		20090705
VM28-246	32	*G. ruber*	250-355	10	0.51	-1.46	127		20090705
VM28-246	36	*G. ruber*	250-355	10	0.88	-1.51	151		20090705
VM28-246	40	*G. ruber*	250-355	10	1.08	-1.50	156		20090705
VM28-246	44	*G. ruber*	250-355	10	0.82	-1.49	129		20090705
VM28-246	48	*G. ruber*	250-355	10	0.53	-1.48	141		20090705
VM28-246	52	*G. ruber*	250-355	10	0.43	-1.42	122		20090705
VM28-246	56	*G. ruber*	250-355	10	0.70	-1.36	114		20090705
VM28-246	60	*G. ruber*	250-355	10	0.63	-1.86	117		20090705

VM28-246	60	*G. ruber*	250-355	10	0.72	-1.79	125	20120312
VM28-246	60	*G. ruber*	250-355	10	0.67	-1.61	121	20120312
VM28-246	64	*G. ruber*	250-355	10	0.45	-1.59	135	20120312
VM28-246	64	*G. ruber*	250-355	10	1.00	-1.86	140	20120312
VM28-246	68	*G. ruber*	250-355	10	0.78	-1.92	117	20120312
VM28-246	68	*G. ruber*	250-355	10	0.62	-2.07	125	20120312
VM28-246	72	*G. ruber*	250-355	10	0.60	-2.07	133	20120312
VM28-246	72	*G. ruber*	250-355	10	0.73	-2.17	119	20120312
VM28-246	76	*G. ruber*	250-355	10	0.78	-2.16	105	20120312
VM28-246	76	*G. ruber*	250-355	10	1.07	-2.26	113	20120312
VM28-246	80	*G. ruber*	250-355	10	1.01	-2.02	150	20120312
VM28-246	80	*G. ruber*	250-355	10	0.84	-2.00	133	20120312
VM28-246	84	*G. ruber*	250-355	10	0.85	-1.83	116	20120312
VM28-246	84	*G. ruber*	250-355	10	0.24	-2.36	108	20120312
VM28-246	88	*G. ruber*	250-355	10	0.58	-2.12	126	20120312
VM28-246	88	*G. ruber*	250-355	10	0.60	-2.22	108	20120312

VM28-246	92	*G. ruber*	250-355	10	0.68	-1.99	111	20120312
VM28-246	92	*G. ruber*	250-355	10	0.80	-2.10	112	20120312
VM28-246	96	*G. ruber*	250-355	10	0.71	-2.23	106	20120312
VM28-246	96	*G. ruber*	250-355	10	0.82	-2.42	120	20120312
VM28-246	100	*G. ruber*	250-355	10	0.76	-2.08	126	20120312
VM28-246	100	*G. ruber*	250-355	10	1.18	-2.33	145	20120312
VM28-246	104	*G. ruber*	250-355	10	0.42	-2.24	137	20120312
VM28-246	104	*G. ruber*	250-355	10	0.87	-1.96	123	20120312
VM28-246	108	*G. ruber*	250-355	10	0.83	-2.21	129	20120314
VM28-246	108	*G. ruber*	250-355	10	0.68	-2.09	112	20120314
VM28-246	112	*G. ruber*	250-355	10	0.56	-2.41	119	20120314
VM28-246	112	*G. ruber*	250-355	10	0.77	-2.14	132	20120314
VM28-246	116	*G. ruber*	250-355	10	0.30	-2.43	116	20120314
VM28-246	116	*G. ruber*	250-355	10	0.28	-2.34	117	20120314
VM28-246	120	*G. ruber*	250-355	10	0.42	-2.17	128	20120314
VM28-246	120	*G. ruber*	250-355	10	0.13	-1.86	112	20120314

VM28-246	124	*G. ruber*	250-355	10	0.59	-1.55	134	20120314
VM28-246	124	*G. ruber*	250-355	10	0.44	-1.54	130	20120314
VM28-246	128	*G. ruber*	250-355	10	0.35	-1.51	134	20120314
VM28-246	128	*G. ruber*	250-355	10	0.47	-1.77	130	20120314
VM28-246	132	*G. ruber*	250-355	10	0.44	-1.75	120	20120314
VM28-246	132	*G. ruber*	250-355	10	0.67	-1.19	152	20120314
VM28-246	136	*G. ruber*	250-355	10	0.54	-1.44	123	20120314
VM28-246	136	*G. ruber*	250-355	10	0.71	-1.26	146	20120314
VM28-246	140	*G. ruber*	250-355	10	0.67	-1.04	146	20120314
VM28-246	140	*G. ruber*	250-355	10	0.17	-1.31	135	20120314
VM28-246	144	*G. ruber*	250-355	10	0.71	-1.25	150	20120314
VM28-246	144	*G. ruber*	250-355	10	0.85	-1.50	131	20120314
VM28-246	148	*G. ruber*	250-355	10	0.87	-1.25	150	20120314
VM28-246	148	*G. ruber*	250-355	10	0.89	-1.32	144	20120314
VM28-246	152	*G. ruber*	250-355	10	0.53	-1.42	128	20120314
VM28-246	152	*G. ruber*	250-355	10	0.32	-1.29	131	20120314

VM28-246	156	*G. ruber*	250-355	10	0.58	-1.43	129	20120316
VM28-246	156	*G. ruber*	250-355	10	0.36	-1.58	144	20120316
VM28-246	160	*G. ruber*	250-355	10	0.21	-1.37	134	20120316
VM28-246	160	*G. ruber*	250-355	10	0.10	-1.45	124	20120316
VM28-246	164	*G. ruber*	250-355	10	0.56	-1.42	135	20120316
VM28-246	164	*G. ruber*	250-355	10	0.38	-1.56	152	20120316
VM28-246	168	*G. ruber*	250-355	10	0.20	-1.47	127	20120316
VM28-246	168	*G. ruber*	250-355	10	0.41	-1.35	133	20120316
VM28-246	172	*G. ruber*	250-355	10	0.26	-1.47	138	20120316
VM28-246	172	*G. ruber*	250-355	10	0.55	-1.68	125	20120319
VM28-246	176	*G. ruber*	250-355	10	0.42	-1.59	135	20120319
VM28-246	176	*G. ruber*	250-355	10	0.61	-1.56	135	20120319
VM28-246	180	*G. ruber*	250-355	10	0.31	-1.67	130	20120319
VM28-246	180	*G. ruber*	250-355	10	0.29	-1.81	131	20120319
VM28-246	184	*G. ruber*	250-355	10	0.94	-1.47	149	20120319
VM28-246	184	*G. ruber*	250-355	10	0.73	-1.68	131	20120319

VM28-246	188	*G. ruber*	250-355	10	0.55	-1.48	153	20120319
VM28-246	188	*G. ruber*	250-355	10	0.71	-1.40	144	20120319
VM28-246	192	*G. ruber*	250-355	10	0.28	-1.56	136	20120319
VM28-246	192	*G. ruber*	250-355	10	0.04	-1.50	127	20120319
VM28-246	196	*G. ruber*	250-355	10	0.31	-1.48	115	20120319
VM28-246	196	*G. ruber*	250-355	10	0.74	-1.57	115	20120319
VM28-246	200	*G. ruber*	250-355	10	0.57	-1.61	104	20120319
VM28-246	200	*G. ruber*	250-355	10	0.51	-1.71	112	20120319
VM28-246	204	*G. ruber*	250-355	10	0.56	-1.86	105	20120320
VM28-246	204	*G. ruber*	250-355	10	0.67	-1.59	131	20120320
VM28-246	208	*G. ruber*	250-355	10	0.46	-1.91	125	20120320
VM28-246	208	*G. ruber*	250-355	10	0.48	-2.05	123	20120320
VM28-246	212	*G. ruber*	250-355	10	0.39	-2.11	105	20120320
VM28-246	212	*G. ruber*	250-355	10	0.60	-1.77	108	20120320
VM28-246	216	*G. ruber*	250-355	10	0.80	-1.89	114	20120320
VM28-246	216	*G. ruber*	250-355	10	0.84	-1.86	115	20120320

VM28-246	220	*G. ruber*	250-355	10	0.75	-1.98	107	20120320
VM28-246	220	*G. ruber*	250-355	10	0.86	-1.89	118	20120320
VM28-246	224	*G. ruber*	250-355	10	0.50	-1.80	97	20120320
VM28-246	224	*G. ruber*	250-355	10	0.66	-1.79	118	20120320
VM28-246	228	*G. ruber*	250-355	10	0.59	-1.49	120	20120320
VM28-246	228	*G. ruber*	250-355	10	0.14	-1.73	98	20120320
VM28-246	232	*G. ruber*	250-355	10	0.62	-1.88	116	20120320
VM28-246	232	*G. ruber*	250-355	10	0.64	-1.80	118	20120320
VM28-246	236	*G. ruber*	250-355	10	0.65	-1.80	121	20120320
VM28-246	236	*G. ruber*	250-355	10	0.89	-1.59	113	20120320
VM28-246	240	*G. ruber*	250-355	10	0.84	-1.88	139	20120320
VM28-246	240	*G. ruber*	250-355	10	0.85	-2.01	126	20120320
VM28-246	244	*G. ruber*	250-355	10	0.53	-1.69	147	20120320
VM28-246	244	*G. ruber*	250-355	10	0.49	-1.48	127	20120320
VM28-246	248	*G. ruber*	250-355	10	0.82	-1.39	145	20120320
VM28-246	248	*G. ruber*	250-355	10	0.60	-1.33	140	20120320

VM28-246	8	*P. obliquiloculata*	355-425	1	1.71	0.20	56	20110620
VM28-246	8	*P. obliquiloculata*	355-425	1	1.13	-0.41	53	20110620
VM28-246	8	*P. obliquiloculata*	355-425	1	1.56	-0.61	59	20110620
VM28-246	16	*P. obliquiloculata*	355-425	1	1.74	-0.42	50	20111129
VM28-246	16	*P. obliquiloculata*	355-425	1	1.73	-0.21	49	20111129
VM28-246	16	*P. obliquiloculata*	355-425	1	1.05	-1.00	43	20111129
VM28-246	16	*P. obliquiloculata*	355-425	1	1.39	-0.34	45	20111129
VM28-246	16	*P. obliquiloculata*	355-425	1	0.85	-0.42	23	20111129
VM28-246	16	*P. obliquiloculata*	355-425	1	0.97	-0.49	29	20111129
VM28-246	16	*P. obliquiloculata*	355-425	1	1.62	-0.12	31	20111129
VM28-246	92	*C. wuellerstorfi*	>250	1	-0.50	3.84	64	20120516
VM28-246	92	*C. wuellerstorfi*	>250	1	0.16	3.04	121	20120516
VM28-246	92	*C. wuellerstorfi*	>250	1	0.25	3.25	97	20120516
VM28-246	96	*C. wuellerstorfi*	>250	1	0.04	3.19	106	20120516
VM28-246	100	*C. wuellerstorfi*	>250	1	-0.35	4.03	72	20120516
VM28-246	100	*C. wuellerstorfi*	>250	1	-0.01	3.26	61	20120516

VM28-246	100	*C. wuellerstorfi*	>250	1	0.24	2.79	52	20120516
VM28-246	104	*C. wuellerstorfi*	>250	1	-0.12	3.90	91	20120516
VM28-246	108	*C. wuellerstorfi*	>250	1	-0.07	4.34	127	20120516
VM28-246	108	*C. wuellerstorfi*	>250	1	-0.05	2.91	104	20120516
VM28-246	108	*C. wuellerstorfi*	>250	1	-0.29	3.90	77	20120516
VM28-246	112	*C. wuellerstorfi*	>250	1	-0.16	4.08	87	20120516
VM28-246	112	*C. wuellerstorfi*	>250	1	0.15	2.95	70	20120516
VM28-246	116	*C. wuellerstorfi*	>250	1	-0.29	3.73	129	20120516
VM28-246	116	*C. wuellerstorfi*	>250	1	0.26	2.65	141	20120516
VM28-246	116	*C. wuellerstorfi*	>250	1	-0.22	4.18	102	20120516
VM28-246	120	*C. wuellerstorfi*	>250	1	-0.19	3.93	59	20120516
VM28-246	120	*C. wuellerstorfi*	>250	1	0.19	2.52	109	20120516
VM28-246	124	*C. wuellerstorfi*	>250	1	-0.17	4.24	147	20120516
VM28-246	124	*C. wuellerstorfi*	>250	1	-0.24	4.09	131	20120516
VM28-246	124	*C. wuellerstorfi*	>250	1	-0.32	4.14	156	20120516
VM28-246	128	*C. wuellerstorfi*	>250	1	-0.20	4.02	54	20120516

VM28-246	132	*C. wuellerstorfi*	>250	1	-0.15	4.15	141	20120617
VM28-246	132	*C. wuellerstorfi*	>250	1	-0.26	3.90	73	20120617
VM28-246	132	*C. wuellerstorfi*	>250	1	-0.24	3.83	61	20120617
VM28-246	136	*C. wuellerstorfi*	>250	1	-0.29	4.27	133	20120617
VM28-246	136	*C. wuellerstorfi*	>250	1	-0.26	4.23	146	20120617
VM28-246	136	*C. wuellerstorfi*	>250	1	-0.26	4.04	86	20120617
VM28-246	144	*C. wuellerstorfi*	>250	1	-0.43	3.84	62	20120617
VM28-246	148	*C. wuellerstorfi*	>250	1	-0.28	3.82	165	20120617
VM28-246	148	*C. wuellerstorfi*	>250	1	-0.32	3.79	66	20120617
VM28-246	152	*C. wuellerstorfi*	>250	1	-0.30	4.11	127	20120617
VM28-246	152	*C. wuellerstorfi*	>250	1	-0.17	4.02	93	20120617
VM28-246	160	*C. wuellerstorfi*	>250	1	-0.34	3.81	53	20120617
VM28-246	164	*C. wuellerstorfi*	>250	1	-0.13	3.66	95	20120617
VM28-246	164	*C. wuellerstorfi*	>250	1	-0.38	3.98	111	20120617
VM28-246	168	*C. wuellerstorfi*	>250	1	-0.30	3.72	69	20120617
VM28-246	168	*C. wuellerstorfi*	>250	1	-0.25	3.63	75	20120617

VM28-246	172	*C. wuellerstorfi*	>250	1	-0.21	3.82	73	20120617
VM28-246	172	*C. wuellerstorfi*	>250	1	-0.28	3.79	177	20120617
VM28-246	172	*C. wuellerstorfi*	>250	1	-0.36	3.69	83	20120617
VM28-246	176	*C. wuellerstorfi*	>250	1	-0.34	3.71	124	20120617
VM28-246	176	*C. wuellerstorfi*	>250	1	-0.35	3.56	51	20120617
VM28-246	176	*C. wuellerstorfi*	>250	1	-0.38	3.61	52	20120617
VM28-246	64	*C. wuellerstorfi*	>250	1	0.46	3.45	45	20120518
VM28-246	80	*C. wuellerstorfi*	>250	1	0.17	3.43	26	20120518
VM28-246	84	*C. wuellerstorfi*	>250	1	0.38	3.16	47	20120518
VM28-246	84	*C. wuellerstorfi*	>250	1	0.24	3.40	36	20120518
VM28-246	224	*C. wuellerstorfi*	>250	1	0.10	3.52	23	20120518
VM28-246	96	*C. wuellerstorfi*	>250	1	0.32	3.20	45	20120518
VM28-246	96	*C. wuellerstorfi*	>250	1	0.29	3.20	30	20120518
VM28-246	112	*C. wuellerstorfi*	>250	1	0.05	4.08	40	20120518
VM28-246	128	*C. wuellerstorfi*	>250	1	-0.16	4.14	40	20120518
VM28-246	128	*C. wuellerstorfi*	>250	1	0.02	4.27	48	20120518

VM28-246	140	*C. wuellerstorfi*	>250	1	-0.23	3.69	43	20120518
VM28-246	140	*C. wuellerstorfi*	>250	1	-0.10	4.04	36	20120518
VM28-246	144	*C. wuellerstorfi*	>250	1	-0.07	4.19	35	20120518
VM28-246	156	*C. wuellerstorfi*	>250	1	-0.15	4.04	27	20120518
VM28-246	8	*C. wuellerstorfi*	>250	1	0.46	2.72	49	20120518
VM28-246	12	*C. wuellerstorfi*	>250	1	0.17	3.15	48	20120518
VM28-246	16	*C. wuellerstorfi*	>250	1	0.21	3.79	43	20120518
VM28-246	16	*C. wuellerstorfi*	>250	1	0.03	3.72	22	20120518
VM28-246	24	*C. wuellerstorfi*	>250	1	0.31	2.96	25	20120518
VM28-246	24	*C. wuellerstorfi*	>250	1	0.25	3.86	22	20120518
VM28-246	28	*C. wuellerstorfi*	>250	1	0.19	3.82	29	20120518
VM28-246	28	*C. wuellerstorfi*	>250	1	0.02	4.02	32	20120518
VM28-246	48	*C. wuellerstorfi*	>250	1	0.34	3.18	45	20120518
VM28-246	60	*C. wuellerstorfi*	>250	1	-0.12	4.03	39	20120518
VM28-246	60	*C. wuellerstorfi*	>250	1	0.15	3.78	45	20120518
VM28-246	204	*C. wuellerstorfi*	>250	1	-0.04	3.29	36	20120518

VM28-246	204	*C. wuellerstorfi*	>250	1	0.05	3.57	35	20120518
VM28-246	208	*C. wuellerstorfi*	>250	1	0.37	3.26	46	20120518
VM28-246	212	*C. wuellerstorfi*	>250	1	0.10	3.56	25	20120518
VM28-246	180	*C. wuellerstorfi*	>250	1	-0.13	3.83	54	20120521
VM28-246	180	*C. wuellerstorfi*	>250	1	-0.22	3.80	76	20120521
VM28-246	180	*C. wuellerstorfi*	>250	1	-0.07	3.82	50	20120521
VM28-246	184	*C. wuellerstorfi*	>250	1	-0.33	3.96	129	20120521
VM28-246	184	*C. wuellerstorfi*	>250	1	-0.39	3.75	98	20120521
VM28-246	184	*C. wuellerstorfi*	>250	1	-0.39	3.79	54	20120521
VM28-246	188	*C. wuellerstorfi*	>250	1	-0.23	3.98	112	20120521
VM28-246	188	*C. wuellerstorfi*	>250	1	-0.20	3.85	192	20120521
VM28-246	188	*C. wuellerstorfi*	>250	1	-0.19	3.94	175	20120521
VM28-246	192	*C. wuellerstorfi*	>250	1	-0.19	4.24	145	20120521
VM28-246	192	*C. wuellerstorfi*	>250	1	-0.28	3.89	124	20120521
VM28-246	192	*C. wuellerstorfi*	>250	1	-0.30	3.89	119	20120521
VM28-246	196	*C. wuellerstorfi*	>250	1	-0.26	3.86	71	20120521

VM28-246	196	*C. wuellerstorfi*	>250	1	-0.33	3.72	114	20120521
VM28-246	196	*C. wuellerstorfi*	>250	1	-0.24	3.96	83	20120521
VM28-246	200	*C. wuellerstorfi*	>250	1	0.06	3.20	131	20120521
VM28-246	200	*C. wuellerstorfi*	>250	1	-0.31	3.85	66	20120521
VM28-246	204	*C. wuellerstorfi*	>250	1	0.26	3.14	63	20120521
VM28-246	208	*C. wuellerstorfi*	>250	1	-0.04	3.25	95	20120521
VM28-246	208	*C. wuellerstorfi*	>250	1	0.27	3.35	149	20120521
VM28-246	212	*C. wuellerstorfi*	>250	1	-0.10	3.90	101	20120521
VM28-246	212	*C. wuellerstorfi*	>250	1	0.19	3.07	55	20120521
VM28-246	248	*C. wuellerstorfi*	>250	1	-0.20	4.07	88	20120521
VM28-246	248	*C. wuellerstorfi*	>250	1	-0.17	3.89	152	20120521
VM28-246	216	*C. wuellerstorfi*	>250	1	0.12	2.99	68	20120522
VM28-246	216	*C. wuellerstorfi*	>250	1	0.06	3.73	93	20120522
VM28-246	216	*C. wuellerstorfi*	>250	1	-0.02	3.54	54	20120522
VM28-246	220	*C. wuellerstorfi*	>250	1	0.23	2.83	112	20120522
VM28-246	220	*C. wuellerstorfi*	>250	1	0.23	2.81	65	20120522

VM28-246	224	*C. wuellerstorfi*	>250	1	-0.10	3.03	54	20120522
VM28-246	224	*C. wuellerstorfi*	>250	1	-0.18	3.01	85	20120522
VM28-246	228	*C. wuellerstorfi*	>250	1	-0.22	3.85	128	20120522
VM28-246	228	*C. wuellerstorfi*	>250	1	-0.07	3.80	63	20120522
VM28-246	228	*C. wuellerstorfi*	>250	1	0.36	2.57	52	20120522
VM28-246	232	*C. wuellerstorfi*	>250	1	0.08	3.89	111	20120522
VM28-246	232	*C. wuellerstorfi*	>250	1	0.16	3.75	136	20120522
VM28-246	236	*C. wuellerstorfi*	>250	1	0.10	3.33	124	20120522
VM28-246	236	*C. wuellerstorfi*	>250	1	-0.18	3.51	66	20120522
VM28-246	236	*C. wuellerstorfi*	>250	1	-0.09	3.51	54	20120522
VM28-246	240	*C. wuellerstorfi*	>250	1	0.50	2.70	116	20120522
VM28-246	240	*C. wuellerstorfi*	>250	1	0.22	3.32	81	20120522
VM28-246	240	*C. wuellerstorfi*	>250	1	0.06	3.00	52	20120522
VM28-246	244	*C. wuellerstorfi*	>250	1	-0.15	3.36	123	20120522
VM28-246	244	*C. wuellerstorfi*	>250	1	0.06	2.75	76	20120522
VM28-246	244	*C. wuellerstorfi*	>250	1	-0.34	3.83	114	20120522

VM28-246	248	*C. wuellerstorfi*	>250	1	-0.19	3.94	94	20120522
VM28-246	8	*C. wuellerstorfi*	>250	1	0.33	2.72	114	201200523
VM28-246	8	*C. wuellerstorfi*	>250	0.5	-0.23	3.80	131	201200523
VM28-246	20	*C. wuellerstorfi*	>250	0.5	-0.13	4.18	150	201200523
VM28-246	20	*C. wuellerstorfi*	>250	0.5	-0.13	4.07	113	201200523
VM28-246	28	*C. wuellerstorfi*	>250	1	0.28	3.90	85	201200523
VM28-246	32	*C. wuellerstorfi*	>250	1	-0.17	3.57	51	201200523
VM28-246	32	*C. wuellerstorfi*	>250	1	0.21	2.98	30	201200523
VM28-246	36	*C. wuellerstorfi*	>250	1	0.20	3.59	51	201200523
VM28-246	36	*C. wuellerstorfi*	>250	1	-0.03	3.50	98	201200523
VM28-246	44	*C. wuellerstorfi*	>250	1	-0.03	3.59	90	201200523
VM28-246	44	*C. wuellerstorfi*	>250	1	0.11	3.54	98	201200523
VM28-246	52	*C. wuellerstorfi*	>250	1	-0.26	3.67	72	201200523
VM28-246	56	*C. wuellerstorfi*	>250	1	0.08	3.83	92	201200523
VM28-246	60	*C. wuellerstorfi*	>250	1	-0.08	3.76	86	201200523
VM28-246	0	*C. wuellerstorfi*	>250	1	0.27	2.51	129	20100809

VM28-246	0	*C. wuellerstorfi*	>250	1	0.44	2.60	73		20100809
VM28-246	0	*C. wuellerstorfi*	>250	1	0.47	2.49	118		20100809
VM28-246	4	*C. wuellerstorfi*	>250	1	-0.18	4.13	146		20100809
VM28-246	4	*C. wuellerstorfi*	>250	1	0.39	2.51	144		20100809
VM28-246	4	*C. wuellerstorfi*	>250	1	0.21	2.75	61		20100809
VM19-110	1	*G. tumida*		1	2.27	-0.15	94	LH	20090406
VM19-110	1	*G. tumida*		1	2.58	0.36	99	LH	20090406
VM19-110	1	*G. tumida*		1	1.86	-0.79	98	LH	20090406
VM19-110	1	*G. tumida*		1	2.27	0.36	93	LH	20090406
VM19-110	1	*G. tumida*		1	2.15	1.19	93	LH	20090406
VM19-110	4	*G. tumida*	425-500	1	1.64	-0.63	116	LH	20080815
VM19-110	4	*G. tumida*	425-500	1	1.96	-1.20	150	LH	20080815
VM19-110	4	*G. tumida*	425-500	1	1.73	-1.03	151	LH	20080825
VM19-110	4	*G. tumida*	425-500	1	2.29	0.29	116	LH	20080825
VM19-110	4	*G. tumida*	425-500	1	1.72	0.06	101	LH	20080825
VM19-110	4	*G. tumida*	355-425	1	1.79	-1.10	93	LH	20100927

VM19-110	4	*G. tumida*	355-425	1	2.18	0.82	89	LH	20100927
VM19-110	4	*G. tumida*	355-425	1	2.13	-1.08	97	LH	20100927
VM19-110	4	*G. tumida*	355-425	1	1.76	-0.72	69	LH	20100927
VM19-110	4	*G. tumida*	355-425	1	2.00	0.74	90	LH	20100927
VM19-110	4	*G. tumida*	355-425	1	1.77	0.12	90	LH	20100927
VM19-110	4	*G. tumida*	355-425	1	1.87	0.15	70	LH	20100927
VM19-110	4	*G. tumida*	355-425	1	2.39	-0.98	101	LH	20100927
VM19-110	4	*G. tumida*	355-425	1	2.29	-0.23	92	LH	20110630
VM19-110	4	*G. tumida*	355-425	1	2.07	-1.00	101	LH	20110630
VM19-110	4	*G. tumida*	355-425	1	1.61	0.15	105	LH	20110630
VM19-110	4	*G. tumida*	355-425	1	1.75	-0.43	104	LH	20110630
VM19-110	4	*G. tumida*	355-425	1	1.94	-0.74	112	LH	20110630
VM19-110	4	*G. tumida*	355-425	1	1.88	-0.77	98	LH	20110630
VM19-110	4	*G. tumida*	355-425	1	1.85	-0.74	77	LH	20110630
VM19-110	4	*G. tumida*	355-425	1	1.91	-0.48	102	LH	20110630
VM19-110	4	*G. tumida*	355-425	1	1.85	-0.90	92	LH	20110630

VM19-110	4	*G. tumida*	355-425	1	1.75	-0.23	92	LH	20110630
VM19-110	4	*G. tumida*	355-425	1	2.01	-0.36	80	LH	20110630
VM19-110	8	*G. tumida*	425-500	1	2.06	-0.24	147		20080815
VM19-110	8	*G. tumida*	425-500	1	2.24	0.57	115		20080815
VM19-110	12	*G. tumida*	425-500	1	1.86	-0.14	145		20080815
VM19-110	12	*G. tumida*	425-500	1	1.88	-0.49	138		20080815
VM19-110	12	*G. tumida*	425-500	1	1.78	-0.48	135		20080815
VM19-110	12	*G. tumida*	425-500	1	2.16	-1.26	112		20091008
VM19-110	12	*G. tumida*	425-500	1	1.81	-0.27	138		20091008
VM19-110	12	*G. tumida*	425-500	1	2.04	1.11	115		20091008
VM19-110	12	*G. tumida*	425-500	1	1.47	0.05	140		20091008
VM19-110	12	*G. tumida*	425-500	1	1.76	-0.08	100		20091008
VM19-110	16	*G. tumida*	425-500	1	1.98	0.84	114		20080815
VM19-110	16	*G. tumida*	425-500	1	1.94	0.83	120		20080815
VM19-110	16	*G. tumida*	425-500	1	2.27	0.69	118		20080815
VM19-110	20	*G. tumida*	425-500	1	1.67	0.31	157		20080815

VM19-110	20	*G. tumida*	425-500	1	1.76	1.77	100		20080815
VM19-110	20	*G. tumida*	425-500	1	1.99	0.61	106		20080815
VM19-110	24	*G. tumida*	425-500	1	1.69	-0.85	128	LGM	20080815
VM19-110	24	*G. tumida*	425-500	1	2.22	1.08	108	LGM	20080815
VM19-110	24	*G. tumida*	425-500	1	2.15	1.11	114	LGM	20080815
VM19-110	24	*G. tumida*	425-500	1	2.25	0.33	106	LGM	20110510
VM19-110	24	*G. tumida*	425-500	1	1.95	1.14	88	LGM	20110510
VM19-110	24	*G. tumida*	425-500	1	2.39	0.51	94	LGM	20110510
VM19-110	24	*G. tumida*	425-500	1	2.49	0.15	100	LGM	20110510
VM19-110	24	*G. tumida*	425-500	1	2.42	0.14	95	LGM	20110510
VM19-110	24	*G. tumida*	425-500	1	2.15	1.45	105	LGM	20110510
VM19-110	24	*G. tumida*	425-500	1	2.26	0.41	91	LGM	20110510
VM19-110	24	*G. tumida*	425-500	1	1.85	0.64	80	LGM	20110510
VM19-110	24	*G. tumida*	425-500	1	1.40	-0.11	108	LGM	20110510
VM19-110	24	*G. tumida*	425-500	1	1.93	0.77	109	LGM	20110510
VM19-110	28	*G. tumida*	425-500	1	1.86	0.90	126	LGM	20080815

VM19-110	28	*G. tumida*	425-500	1	2.42	0.79	98	LGM	20080815
VM19-110	28	*G. tumida*	425-500	1	2.01	1.46	108	LGM	20080815
VM19-110	28	*G. tumida*	425-500	1	1.81	-0.77	138	LGM	20081206
VM19-110	28	*G. tumida*	425-500	1	1.66	-0.04	150	LGM	20081206
VM19-110	28	*G. tumida*	425-500	1	2.20	0.02	101	LGM	20081206
VM19-110	28	*G. tumida*	425-500	1	2.04	1.52	95	LGM	20081206
VM19-110	28	*G. tumida*	425-500	1	2.55	0.48	116	LGM	20081206
VM19-110	28	*G. tumida*	425-500	1	1.58	0.26	162	LGM	20101221
VM19-110	28	*G. tumida*	425-500	1	1.97	1.45	82	LGM	20101221
VM19-110	28	*G. tumida*	425-500	1	1.53	-1.10	96	LGM	20101221
VM19-110	28	*G. tumida*	425-500	1	1.84	1.57	121	LGM	20101221
VM19-110	28	*G. tumida*	425-500	1	2.00	0.83	111	LGM	20101221
VM19-110	28	*G. tumida*	425-500	1	1.54	0.09	151	LGM	20101221
VM19-110	28	*G. tumida*	425-500	1	1.78	1.42	79	LGM	20101221
VM19-110	28	*G. tumida*	425-500	1	1.79	1.77	82	LGM	20101221
VM19-110	28	*G. tumida*	425-500	1	1.82	0.11	102	LGM	20101221

VM19-110	28	*G. tumida*	425-500	1	2.04	0.15	91	LGM	20101221
VM19-110	4	*G. ruber*			1.43	-1.75	65	LH	20081014
VM19-110	8	*G. ruber*			1.55	-2.45	65		20081014
VM19-110	12	*G. ruber*			1.33	-2.36	59		20081014
VM19-110	16	*G. ruber*			1.20	-1.56	67		20081014
VM19-110	24	*G. ruber*			1.03	-1.47	71	LGM	20081014
VM19-110	28	*G. ruber*			0.92	-1.12	57	LGM	20081014
VM19-110	4	*G. ruber*	250-355	10	1.03	-1.99	123	LH	20091117
VM19-110	4	*G. ruber*	250-355	10	1.20	-2.18	126	LH	20091204
VM19-110	8	*G. ruber*	250-355	10	1.46	-2.34	119		20091204
VM19-110	12	*G. ruber*	250-355	10	1.42	-2.22	146		20091204
VM19-110	16	*G. ruber*	250-355	10	1.13	-1.77	136		20091204
VM19-110	20	*G. ruber*	250-355	10	1.25	-1.70	137		20091204
VM19-110	24	*G. ruber*	250-355	10	1.17	-1.50	158	LGM	20091204
VM19-110	28	*G. ruber*	250-355	10	1.08	-1.20	133	LGM	20091204
VM19-110	32	*G. ruber*	250-355	10	0.95	-1.40	115		20110130

VM19-110	36	*G. ruber*	250-355	10	1.13	-1.49	113	20110130
VM19-110	40	*G. ruber*	250-355	10	1.33	-1.48	142	20110130
VM19-110	44	*G. ruber*	250-355	10	0.93	-1.97	119	20110130
VM19-110	48	*G. ruber*	250-355	10	1.09	-1.81	128	20110130
VM19-110	52	*G. ruber*	250-355	10	1.16	-1.62	126	20110130
VM19-110	56	*G. ruber*	250-355	10	0.89	-1.67	94	20110130
VM19-110	68	*G. ruber*	250-355	10	0.40	-1.14	119	20110523
VM19-110	68	*G. ruber*	250-355	10	0.22	-1.33	130	20110523
VM19-110	72	*G. ruber*	250-355	10	0.83	-1.14	107	20110523
VM19-110	72	*G. ruber*	250-355	10	0.46	-1.15	111	20110523
VM19-110	76	*G. ruber*	250-355	10	0.64	-0.93	114	20110523
VM19-110	76	*G. ruber*	250-355	10	0.44	-1.36	103	20110523
VM19-110	80	*G. ruber*	250-355	10	0.72	-0.95	123	20110523
VM19-110	80	*G. ruber*	250-355	10	0.50	-1.26	119	20110523
VM19-110	84	*G. ruber*	250-355	10	0.42	-1.03	131	20110523
VM19-110	84	*G. ruber*	250-355	10	0.31	-1.06	130	20110523

VM19-110	88	*G. ruber*	250-355	10	0.42	-1.11	110	20110523
VM19-110	88	*G. ruber*	250-355	10	0.74	-0.95	115	20110523
VM19-110	92	*G. ruber*	250-355	10	0.84	-1.43	102	20110523
VM19-110	92	*G. ruber*	250-355	10	0.38	-1.23	95	20110523
VM19-110	96	*G. ruber*	250-355	10	1.16	-1.18	100	20110523
VM19-110	96	*G. ruber*	250-355	10	0.76	-1.38	113	20110523
VM19-110	112	*G. ruber*	250-355	10	0.51	-1.24	107	20110523
VM19-110	112	*G. ruber*	250-355	10	0.57	-1.13	117	20110523
VM19-110	116	*G. ruber*	250-355	10	0.76	-0.97	118	20110523
VM19-110	116	*G. ruber*	250-355	10	0.63	-1.15	109	20110523
VM19-110	120	*G. ruber*	250-355	10	0.49	-1.18	128	20110523
VM19-110	120	*G. ruber*	250-355	10	0.54	-0.96	110	20110523
VM19-110	144	*G. ruber*	250-355	10	0.59	-1.19	128	20110523
VM19-110	148	*G. ruber*	250-355	10	0.54	-1.12	122	20110523
VM19-110	152	*G. ruber*	250-355	10	0.29	-0.97	127	20110524
VM19-110	156	*G. ruber*	250-355	10	0.82	-0.78	122	20110524

VM19-110	160	*G. ruber*	250-355	10	0.58	-0.86	106	20110524
VM19-110	160	*G. ruber*	250-355	10	0.60	-0.73	104	20110524
VM19-110	164	*G. ruber*	250-355	10	0.45	-0.96	123	20110524
VM19-110	164	*G. ruber*	250-355	10	0.22	-1.04	126	20110524
VM19-110	168	*G. ruber*	250-355	10	0.62	-0.80	134	20110524
VM19-110	168	*G. ruber*	250-355	10	0.48	-1.10	138	20110524
VM19-110	172	*G. ruber*	250-355	10	0.50	-0.92	117	20110524
VM19-110	172	*G. ruber*	250-355	10	-0.13	-0.89	104	20110524
VM19-110	176	*G. ruber*	250-355	10	0.61	-1.00	119	20110524
VM19-110	176	*G. ruber*	250-355	10	0.23	-0.95	112	20110524
VM19-110	180	*G. ruber*	250-355	10	0.51	-1.14	117	20110524
VM19-110	180	*G. ruber*	250-355	10	0.81	-1.06	113	20110524
VM19-110	184	*G. ruber*	250-355	10	0.60	-1.43	108	20110524
VM19-110	188	*G. ruber*	250-355	10	0.67	-1.20	119	20110524
VM19-110	188	*G. ruber*	250-355	10	0.33	-1.14	123	20110524
VM19-110	192	*G. ruber*	250-355	10	0.66	-1.19	96	20110524

VM19-110	192	*G. ruber*	250-355	10	0.63	-1.40	118	20110524
VM19-110	196	*G. ruber*	250-355	10	0.90	-1.31	127	20110524
VM19-110	196	*G. ruber*	250-355	10	0.21	-1.42	123	20110524
VM19-110	310	*G. ruber*	250-355	10	0.52	-1.48	104	20120227
VM19-110	310	*G. ruber*	250-355	10	0.54	-1.51	115	20120227
VM19-110	314	*G. ruber*	250-355	10	0.04	-1.42	96	20120227
VM19-110	318	*G. ruber*	250-355	10	0.49	-1.29	111	20120227
VM19-110	334	*G. ruber*	250-355	10	0.71	-1.30	108	20120227
VM19-110	334	*G. ruber*	250-355	10	1.14	-1.64	130	20120227
VM19-110	338	*G. ruber*	250-355	10	0.35	-1.34	106	20120227
VM19-110	338	*G. ruber*	250-355	10	0.27	-1.44	119	20120227
VM19-110	342	*G. ruber*	250-355	10	0.85	-1.45	109	20120227
VM19-110	342	*G. ruber*	250-355	10	0.65	-1.40	126	20120227
VM19-110	346	*G. ruber*	250-355	10	0.87	-1.37	118	20120227
VM19-110	346	*G. ruber*	250-355	10	1.15	-1.43	121	20120227
VM19-110	350	*G. ruber*	250-355	10	1.15	-1.51	129	20120227

VM19-110	350	*G. ruber*	250-355	10	1.08	-1.53	114	20120227
VM19-110	354	*G. ruber*	250-355	10	0.98	-1.39	108	20120227
VM19-110	354	*G. ruber*	250-355	10	0.95	-1.44	107	20120227
VM19-110	358	*G. ruber*	250-355	10	0.72	-1.39	119	20120227
VM19-110	358	*G. ruber*	250-355	10	0.87	-1.06	108	20120227
VM19-110	362	*G. ruber*	250-355	10	0.63	-1.19	107	20120227
VM19-110	362	*G. ruber*	250-355	10	1.02	-1.13	111	20120227
VM19-110	366	*G. ruber*	250-355	10	0.26	-1.12	120	20120227
VM19-110	366	*G. ruber*	250-355	10	0.39	-0.95	153	20120227
VM19-110	374	*G. ruber*	250-355	10	0.99	-1.33	115	20120227
VM19-110	374	*G. ruber*	250-355	10	1.03	-1.45	129	20120227
VM19-110	378	*G. ruber*	250-355	10	0.94	-1.54	103	20120227
VM19-110	378	*G. ruber*	250-355	10	0.68	-1.35	104	20120227
VM19-110	382	*G. ruber*	250-355	10	0.77	-1.28	119	20120227
VM19-110	382	*G. ruber*	250-355	10	0.70	-1.42	110	20120227
VM19-110	386	*G. ruber*	250-355	10	0.98	-1.39	114	20120227

VM19-110	208	*G. ruber*	250-355	10	0.49	-1.40	120	20120326
VM19-110	208	*G. ruber*	250-355	10	0.46	-1.28	116	20120326
VM19-110	213	*G. ruber*	250-355	10	0.40	-1.34	125	20120326
VM19-110	213	*G. ruber*	250-355	10	0.44	-1.33	122	20120326
VM19-110	216	*G. ruber*	250-355	10	0.50	-1.50	125	20120326
VM19-110	216	*G. ruber*	250-355	10	0.66	-1.30	106	20120326
VM19-110	221	*G. ruber*	250-355	10	0.67	-1.41	114	20120326
VM19-110	221	*G. ruber*	250-355	10	0.45	-1.31	118	20120326
VM19-110	224	*G. ruber*	250-355	10	0.26	-1.36	114	20120326
VM19-110	236	*G. ruber*	250-355	10	0.41	-1.19	120	20120326
VM19-110	24	*P. obliquiloculata*	355-425	1	1.03	-0.18	45	20110627
VM19-110	24	*P. obliquiloculata*	355-425	1	0.82	-0.26	38	20110627
VM19-110	24	*P. obliquiloculata*	355-425	1	0.89	-0.33	49	20110627
VM19-110	4	*P. obliquiloculata*	355-425	1	1.24	-1.30	48	20110627
VM19-110	4	*P. obliquiloculata*	355-425	1	0.95	0.03	49	20110627
VM19-110	4	*P. obliquiloculata*	355-425	1	0.84	0.08	33	20110628

VM19-110	4	*P. obliquiloculata*	355-425	1	1.15	-1.32	44	20110628
VM19-110	4	*P. obliquiloculata*	355-425	1	1.01	-1.15	41	20110628
VM19-110	24	*P. obliquiloculata*	355-425	1	1.34	0.84	30	20111129
VM19-110	24	*P. obliquiloculata*	355-425	1	1.11	0.97	24	20111129
VM19-110	24	*P. obliquiloculata*	355-425	1	0.61	-0.86	34	20111129
VM19-110	24	*P. obliquiloculata*	355-425	1	1.01	-0.12	41	20111129
VM19-110	24	*P. obliquiloculata*	355-425	1	0.79	0.06	29	20111129
VM19-110	24	*P. obliquiloculata*	355-425	1	0.79	0.05	27	20111129
VM19-110	24	*P. obliquiloculata*	355-425	1	1.43	0.07	35	20111129
VM19-110	4	*C. wuellerstorfi*	>250	1	0.46	2.55	119	20111118
VM19-110	4	*C. wuellerstorfi*	>250	1	-0.09	4.15	51	20111118
VM19-110	4	*C. wuellerstorfi*	>250	1	0.44	2.60	60	20111118
VM19-110	12	*C. wuellerstorfi*	>250	1	0.42	2.48	116	20111118
VM19-110	12	*C. wuellerstorfi*	>250	1	0.19	3.29	145	20111118
VM19-110	24	*C. wuellerstorfi*	>250	1	-0.09	3.54	66	20111118
VM19-110	36	*C. wuellerstorfi*	>250	1	-0.10	3.62	68	20111118

VM19-110	12	*C. wuellerstorfi*	>250	1	-0.03	3.69	28		20111118
VM19-110	20	*C. wuellerstorfi*	>250	1	0.09	3.60	28		20111118
VM19-110	20	*C. wuellerstorfi*	>250	1	0.24	2.96	20		20111118
VM19-110	28	*C. wuellerstorfi*	>250	1	-0.01	3.89	26		20111118
VM19-110	28	*C. wuellerstorfi*	>250	1	-0.17	4.23	23		20111118
VM19-110	28	*C. wuellerstorfi*	>250	1	-0.14	4.03	21		20111118
VM19-110	32	*C. wuellerstorfi*	>250	1	0.01	3.63	41		20111118
GGC 49	1	*G. tumida*	425-500	1	1.85	-0.42	109	LH	20101019
GGC 49	1	*G. tumida*	425-500	1	2.12	-0.96	119	LH	20101019
GGC 49	1	*G. tumida*	425-500	1	1.74	-0.22	145	LH	20101019
GGC 49	3	*G. tumida*	425-500	1	1.44	1.14	137		20101019
GGC 49	3	*G. tumida*	425-500	1	1.76	-0.93	145		20101019
GGC 49	3	*G. tumida*	425-500	1	1.88	-0.89	146		20101019
GGC 49	5	*G. tumida*	425-500	1	1.71	-0.59	147		20101019
GGC 49	5	*G. tumida*	425-500	1	1.71	0.00	99		20101019
GGC 49	5	*G. tumida*	425-500	1	1.50	-0.30	151		20101019

GGC 49	7	*G. tumida*	425-500	1	1.38	0.34	164		20101019
GGC 49	7	*G. tumida*	425-500	1	2.09	-0.80	128		20101019
GGC 49	9	*G. tumida*	425-500	1	1.42	0.42	112		20101019
GGC 49	9	*G. tumida*	425-500	1	1.93	-0.45	146		20101019
GGC 49	9	*G. tumida*	425-500	1	1.68	-0.30	155		20101019
GGC 49	11	*G. tumida*	425-500	1	1.54	0.20	159		20101019
GGC 49	11	*G. tumida*	425-500	1	1.81	-0.61	123		20101019
GGC 49	11	*G. tumida*	425-500	1	1.63	-0.20	169		20101019
GGC 49	12	*G. tumida*	425-500	1	1.79	-0.13	144		20101019
GGC 49	12	*G. tumida*	425-500	1	1.96	1.53	118		20101019
GGC 49	13	*G. tumida*	425-500	1	1.38	1.46	113		20101019
GGC 49	13	*G. tumida*	425-500	1	1.82	-0.80	140		20101019
GGC 49	13	*G. tumida*	425-500	1	1.60	0.88	114		20101019
GGC 49	14	*G. tumida*	425-500	1	2.04	0.49	146	LGM	20101020
GGC 49	14	*G. tumida*	425-500	1	2.08	0.82	106	LGM	20101020
GGC 49	14	*G. tumida*	425-500	1	2.00	0.99	151	LGM	20101020

GGC 49	15	*G. tumida*	425-500	1	2.09	-0.16	119	LGM	20101020
GGC 49	15	*G. tumida*	425-500	1	2.28	0.40	104	LGM	20101020
GGC 49	15	*G. tumida*	425-500	1	2.03	1.38	132	LGM	20101020
GGC 49	16	*G. tumida*	425-500	1	2.06	0.80	133	LGM	20101021
GGC 49	16	*G. tumida*	425-500	1	2.40	-0.11	106	LGM	20101021
GGC 49	16	*G. tumida*	425-500	1	2.04	0.81	99	LGM	20101021
GGC 49	17	*G. tumida*	425-500	1	1.77	1.39	127	LGM	20101021
GGC 49	17	*G. tumida*	425-500	1	2.13	0.19	115	LGM	20101021
GGC 49	17	*G. tumida*	425-500	1	1.82	1.29	117	LGM	20101021
GGC 49	19	*G. tumida*	425-500	1	1.53	-0.36	95		20101021
GGC 49	19	*G. tumida*	425-500	1	1.92	0.69	112		20101021
GGC 49	19	*G. tumida*	425-500	1	1.78	1.15	113		20101021
GGC 49	23	*G. tumida*	425-500	1	2.28	-0.46	105		20101021
GGC 49	23	*G. tumida*	425-500	1	2.35	0.12	113		20101021
GGC 49	23	*G. tumida*	425-500	1	2.43	0.02	131		20101021
GGC 49	24	*G. tumida*	425-500	1	1.82	1.51	103		20101021

GGC 49	24	*G. tumida*	425-500	1	2.03	1.47	133	20101021
GGC 49	24	*G. tumida*	425-500	1	2.03	1.62	97	20101021
GGC 49	25	*G. tumida*	425-500	1	2.04	0.08	118	20101021
GGC 49	25	*G. tumida*	425-500	1	2.04	-0.24	110	20101021
GGC 49	25	*G. tumida*	425-500	1	2.66	0.34	104	20101021
GGC 49	26	*G. tumida*	425-500	1	2.08	0.79	124	20101021
GGC 49	26	*G. tumida*	425-500	1	2.32	-0.54	134	20101021
GGC 49	26	*G. tumida*	425-500	1	1.97	0.76	99	20101021
GGC 49	27	*G. tumida*	425-500	1	2.13	0.53	106	20101021
GGC 49	27	*G. tumida*	425-500	1	2.35	0.37	114	20101021
GGC 49	27	*G. tumida*	425-500	1	2.12	0.39	129	20101021
GGC 49	29	*G. tumida*	425-500	1	1.94	0.12	102	20101025
GGC 49	29	*G. tumida*	425-500	1	1.70	1.70	101	20101025
GGC 49	29	*G. tumida*	425-500	1	1.96	0.71	125	20101025
GGC 49	29	*G. tumida*	425-500	1	1.95	0.73	117	20101025
GGC 49	29	*G. tumida*	425-500	1	2.19	0.00	136	20101025

GGC 49	27	*G. tumida*	425-500	1	2.26	0.84	112	20101025
GGC 49	27	*G. tumida*	425-500	1	2.07	1.62	111	20101025
GGC 49	27	*G. tumida*	425-500	1	2.03	-0.02	133	20101025
GGC 49	26	*G. tumida*	425-500	1	1.93	0.33	156	20101025
GGC 49	26	*G. tumida*	425-500	1	2.37	0.33	149	20101025
GGC 49	26	*G. tumida*	425-500	1	1.81	1.43	120	20101025
GGC 49	25	*G. tumida*	425-500	1	2.16	1.44	130	20101025
GGC 49	25	*G. tumida*	425-500	1	2.03	-0.14	111	20101025
GGC 49	25	*G. tumida*	425-500	1	2.06	0.11	109	20101025
GGC 49	24	*G. tumida*	425-500	1	2.24	0.63	115	20101025
GGC 49	24	*G. tumida*	425-500	1	2.33	0.41	116	20101025
GGC 49	24	*G. tumida*	425-500	1	2.06	-0.03	114	20101025
GGC 49	23	*G. tumida*	425-500	1	2.08	1.05	136	20101025
GGC 49	23	*G. tumida*	425-500	1	2.02	0.39	128	20101025
GGC 49	23	*G. tumida*	425-500	1	2.48	-0.43	116	20101025
GGC 49	19	*G. tumida*	425-500	1	1.88	1.09	118	20101025

GGC 49	19	*G. tumida*	425-500	1	2.13	1.07	105		20101025
GGC 49	19	*G. tumida*	425-500	1	2.00	0.19	96		20101025
GGC 49	17	*G. tumida*	425-500	1	1.85	0.53	102	LGM	20101026
GGC 49	17	*G. tumida*	425-500	1	1.81	-0.54	119	LGM	20101026
GGC 49	17	*G. tumida*	425-500	1	2.24	0.28	128	LGM	20101026
GGC 49	17	*G. tumida*	425-500	1	2.27	1.57	131	LGM	20101026
GGC 49	17	*G. tumida*	425-500	1	2.22	0.72	107	LGM	20101026
GGC 49	17	*G. tumida*	425-500	1	2.06	0.37	102	LGM	20101026
GGC 49	17	*G. tumida*	425-500	1	2.11	0.75	126	LGM	20101026
GGC 49	17	*G. tumida*	425-500	1	1.89	1.23	82	LGM	20101026
GGC 49	16	*G. tumida*	425-500	1	2.29	0.16	105	LGM	20101026
GGC 49	16	*G. tumida*	425-500	1	1.82	1.01	82	LGM	20101026
GGC 49	16	*G. tumida*	425-500	1	1.82	1.26	117	LGM	20101026
GGC 49	16	*G. tumida*	425-500	1	2.00	0.89	111	LGM	20101026
GGC 49	16	*G. tumida*	425-500	1	2.31	0.65	95	LGM	20101026
GGC 49	16	*G. tumida*	425-500	1	2.31	-0.14	119	LGM	20101026

GGC 49	16	*G. tumida*	425-500	1	1.96	0.30	103	LGM	20101026
GGC 49	16	*G. tumida*	425-500	1	1.79	1.57	105	LGM	20101026
GGC 49	19	*G. tumida*	425-500	1	1.98	1.20	133		20101026
GGC 49	19	*G. tumida*	425-500	1	2.21	-0.17	106		20101026
GGC 49	19	*G. tumida*	425-500	1	2.44	0.34	116		20101026
GGC 49	19	*G. tumida*	425-500	1	1.70	1.36	102		20101026
GGC 49	19	*G. tumida*	425-500	1	2.08	1.13	131		20101026
GGC 49	19	*G. tumida*	425-500	1	2.01	0.74	103		20101026
GGC 49	19	*G. tumida*	425-500	1	2.33	0.39	123		20101026
GGC 49	19	*G. tumida*	425-500	1	1.62	1.79	122		20101026
GGC 49	1	*G. tumida*	425-500	1	1.92	-0.43	171	LH	20101102
GGC 49	1	*G. tumida*	425-500	1	1.76	0.01	130	LH	20101102
GGC 49	1	*G. tumida*	425-500	1	1.81	-0.18	126	LH	20101102
GGC 49	1	*G. tumida*	425-500	1	1.86	-0.27	150	LH	20101102
GGC 49	1	*G. tumida*	425-500	1	1.65	-0.37	105	LH	20101102
GGC 49	1	*G. tumida*	425-500	1	1.61	0.13	145	LH	20101102

GGC 49	1	*G. tumida*	425-500	1	1.72	-0.42	159	LH	20101102
GGC 49	3	*G. tumida*	425-500	1	1.85	-0.74	135		20101102
GGC 49	3	*G. tumida*	425-500	1	1.89	-0.34	146		20101102
GGC 49	3	*G. tumida*	425-500	1	1.75	-0.65	132		20101102
GGC 49	3	*G. tumida*	425-500	1	1.64	-0.04	127		20101102
GGC 49	3	*G. tumida*	425-500	1	1.79	-0.65	133		20101102
GGC 49	3	*G. tumida*	425-500	1	1.52	-0.20	161		20101102
GGC 49	3	*G. tumida*	425-500	1	1.73	-0.01	136		20101102
GGC 49	3	*G. tumida*	425-500	1	1.75	-1.09	141		20101102
GGC 49	5	*G. tumida*	425-500	1	1.72	-0.33	134		20101102
GGC 49	5	*G. tumida*	425-500	1	1.80	-0.58	138		20101102
GGC 49	5	*G. tumida*	425-500	1	1.97	-0.84	138		20101102
GGC 49	5	*G. tumida*	425-500	1	1.59	-0.71	158		20101102
GGC 49	5	*G. tumida*	425-500	1	1.90	-0.72	127		20101102
GGC 49	5	*G. tumida*	425-500	1	1.75	-0.18	132		20101102
GGC 49	5	*G. tumida*	425-500	1	1.69	-1.01	135		20101102

GGC 49	5	*G. tumida*	425-500	1	1.36	0.51	133		20101102
GGC 49	7	*G. tumida*	425-500	1	1.91	-0.12	132		20101103
GGC 49	7	*G. tumida*	425-500	1	2.11	-0.96	133		20101103
GGC 49	7	*G. tumida*	425-500	1	1.55	0.34	120		20101103
GGC 49	7	*G. tumida*	425-500	1	1.89	-0.93	138		20101103
GGC 49	7	*G. tumida*	425-500	1	1.57	0.24	145		20101103
GGC 49	7	*G. tumida*	425-500	1	1.82	-0.32	117		20101103
GGC 49	7	*G. tumida*	425-500	1	2.10	0.51	100		20101103
GGC 49	7	*G. tumida*	425-500	1	2.16	0.92	114		20101103
GGC 49	14	*G. tumida*	425-500	1	2.01	1.21	140	LGM	20101103
GGC 49	14	*G. tumida*	425-500	1	2.14	1.22	142	LGM	20101103
GGC 49	14	*G. tumida*	425-500	1	2.36	0.77	115	LGM	20101103
GGC 49	14	*G. tumida*	425-500	1	2.44	0.03	114	LGM	20101103
GGC 49	14	*G. tumida*	425-500	1	2.20	0.64	104	LGM	20101103
GGC 49	14	*G. tumida*	425-500	1	1.95	0.68	115	LGM	20101103
GGC 49	14	*G. tumida*	425-500	1	2.31	0.42	92	LGM	20101103

GGC 49	14	*G. tumida*	425-500	1	2.22	0.19	112	LGM	20101103
GGC 49	15	*G. tumida*	425-500	1	2.52	0.15	134	LGM	20101103
GGC 49	15	*G. tumida*	425-500	1	2.07	0.37	101	LGM	20101103
GGC 49	15	*G. tumida*	425-500	1	1.81	1.61	111	LGM	20101103
GGC 49	15	*G. tumida*	425-500	1	2.54	0.20	122	LGM	20101103
GGC 49	15	*G. tumida*	425-500	1	1.87	1.67	83	LGM	20101103
GGC 49	15	*G. tumida*	425-500	1	1.97	-0.11	101	LGM	20101103
GGC 49	15	*G. tumida*	425-500	1	2.08	1.55	93	LGM	20101103
GGC 49	15	*G. tumida*	425-500	1	1.89	1.65	102	LGM	20101103
GGC 49	13	*G. tumida*	425-500	1	1.92	1.49	124		20110718
GGC 49	13	*G. tumida*	425-500	1	1.94	1.29	114		20110718
GGC 49	14	*G. tumida*	425-500	1	1.96	1.10	122	LGM	20110718
GGC 49	14	*G. tumida*	425-500	1	2.41	-0.12	99	LGM	20110718
GGC 49	14	*G. tumida*	425-500	1	1.91	1.49	91	LGM	20110718
GGC 49	15	*G. tumida*	425-500	1	1.86	1.17	115	LGM	20110718
GGC 49	15	*G. tumida*	425-500	1	2.32	0.19	93	LGM	20110718

GGC 49	15	*G. tumida*	425-500	1	1.79	1.64	97	LGM	20110718
GGC 49	15	*G. tumida*	425-500	1	2.46	0.57	90	LGM	20110718
GGC 49	16	*G. tumida*	425-500	1	2.33	0.66	124	LGM	20110718
GGC 49	16	*G. tumida*	425-500	1	2.51	0.24	103	LGM	20110718
GGC 49	16	*G. tumida*	425-500	1	1.99	1.13	110	LGM	20110718
GGC 49	16	*G. tumida*	425-500	1	2.29	0.12	122	LGM	20110718
GGC 49	16	*G. tumida*	425-500	1	2.35	0.64	116	LGM	20110718
GGC 49	17	*G. tumida*	425-500	1	1.73	1.61	102	LGM	20110718
GGC 49	17	*G. tumida*	425-500	1	2.45	0.24	101	LGM	20110718
GGC 49	17	*G. tumida*	425-500	1	2.48	0.20	79	LGM	20110718
GGC 49	19	*G. tumida*	425-500	1	2.26	0.79	104		20110718
GGC 49	19	*G. tumida*	425-500	1	2.09	0.87	89		20110718
GGC 49	17	*G. tumida*	425-500	1	2.36	0.43	86		20110721
GGC 49	19	*G. tumida*	425-500	1	1.85	1.47	103		20110721
GGC 49	23	*G. tumida*	425-500	1	1.95	1.96	79		20110721
GGC 49	23	*G. tumida*	425-500	1	2.05	1.37	95		20110721

GGC 49	23	*G. tumida*	425-500	1	2.24	0.71	129		20110721
GGC 49	23	*G. tumida*	425-500	1	2.20	1.23	111		20110721
GGC 49	1	*G. tumida*	425-500	1	2.15	-1.46	132	LH	20110721
GGC 49	1	*G. tumida*	425-500	1	1.65	-0.34	141	LH	20110721
GGC 49	1	*G. tumida*	425-500	1	1.69	0.11	107	LH	20110721
GGC 49	1	*G. tumida*	425-500	1	1.75	0.20	151	LH	20110721
GGC 49	1	*G. tumida*	425-500	1	1.61	0.44	92	LH	20110721
GGC 49	3	*G. tumida*	425-500	1	2.41	-1.10	128		20110721
GGC 49	3	*G. tumida*	425-500	1	1.50	-0.73	109		20110721
GGC 49	3	*G. tumida*	425-500	1	2.01	-0.74	139		20110721
GGC 49	3	*G. tumida*	425-500	1	1.78	-0.22	146		20110721
GGC 49	3	*G. tumida*	425-500	1	1.65	0.59	102		20110721
GGC 49	5	*G. tumida*	425-500	1	1.98	-0.90	172		20110721
GGC 49	17	*G. tumida*	425-500	1	2.00	0.28	119	LGM	20110810
GGC 49	17	*G. tumida*	425-500	1	1.65	1.82	101	LGM	20110810
GGC 49	17	*G. tumida*	425-500	1	1.84	0.77	95	LGM	20110810

GGC 49	17	*G. tumida*	425-500	1	2.42	1.04	86	LGM	20110810
GGC 49	17	*G. tumida*	425-500	1	1.78	1.22	90	LGM	20110810
GGC 49	19	*G. tumida*	425-500	1	2.34	-0.04	104		20110810
GGC 49	19	*G. tumida*	425-500	1	2.53	0.46	96		20110810
GGC 49	19	*G. tumida*	425-500	1	2.02	1.24	110		20110810
GGC 49	19	*G. tumida*	425-500	1	2.18	0.74	73		20110810
GGC 49	19	*G. tumida*	425-500	1	2.32	0.06	105		20110810
GGC 49	23	*G. tumida*	425-500	1	2.14	1.32	133		20110810
GGC 49	23	*G. tumida*	425-500	1	2.16	0.12	101		20110810
GGC 49	23	*G. tumida*	425-500	1	2.32	0.91	108		20110810
GGC 49	23	*G. tumida*	425-500	1	1.76	1.91	74		20110810
GGC 49	7	*G. tumida*	425-500	1	1.91	-1.09	109		20110817
GGC 49	9	*G. tumida*	425-500	1	1.29	1.57	78		20110817
GGC 49	9	*G. tumida*	425-500	1	1.66	-0.51	129		20110817
GGC 49	9	*G. tumida*	425-500	1	1.82	1.26	117		20110817
GGC 49	9	*G. tumida*	425-500	1	1.44	-0.31	121		20110817

GGC 49	9	*G. tumida*	425-500	1	2.13	0.11	91	20110817
GGC 49	11	*G. tumida*	425-500	1	1.49	1.37	88	20110817
GGC 49	11	*G. tumida*	425-500	1	2.34	0.98	106	20110817
GGC 49	11	*G. tumida*	425-500	1	2.00	0.65	120	20110817
GGC 49	11	*G. tumida*	425-500	1	1.69	1.32	114	20110817
GGC 49	11	*G. tumida*	425-500	1	1.80	-0.24	137	20110817
GGC 49	12	*G. tumida*	425-500	1	2.30	1.20	95	20110817
GGC 49	12	*G. tumida*	425-500	1	1.74	-0.69	140	20110817
GGC 49	12	*G. tumida*	425-500	1	1.82	0.17	151	20110817
GGC 49	13	*G. tumida*	425-500	1	1.43	0.72	127	20110817
GGC 49	13	*G. tumida*	425-500	1	1.75	0.35	107	20110817
GGC 49	13	*G. tumida*	425-500	1	1.86	0.92	111	20110817
GGC 49	13	*G. tumida*	425-500	1	2.15	1.05	77	20110817
GGC 49	12	*G. tumida*	425-500	1	2.03	0.76	96	20110817
GGC 49	12	*G. tumida*	425-500	1	1.32	1.05	110	20110817
GGC 49	13	*G. tumida*	425-500	1	2.19	0.71	98	20110817

GGC 49	14	*G. tumida*	425-500	1	1.71	2.06	107	LGM	20110817
GGC 49	14	*G. tumida*	425-500	1	1.90	-0.71	147	LGM	20110817
GGC 49	14	*G. tumida*	425-500	1	1.77	1.57	103	LGM	20110817
GGC 49	15	*G. tumida*	425-500	1	1.70	-0.38	120	LGM	20110818
GGC 49	15	*G. tumida*	425-500	1	1.52	1.15	94	LGM	20110818
GGC 49	15	*G. tumida*	425-500	1	1.88	1.57	94	LGM	20110818
GGC 49	16	*G. tumida*	425-500	1	2.04	1.39	94	LGM	20110818
GGC 49	16	*G. tumida*	425-500	1	2.15	1.46	94	LGM	20110818
GGC 49	16	*G. tumida*	425-500	1	2.01	0.47	90	LGM	20110818
GGC 49	16	*G. tumida*	425-500	1	2.00	0.76	98	LGM	20110818
GGC 49	14	*G. tumida*	425-500	1	1.95	1.08	119	LGM	20110818
GGC 49	14	*G. tumida*	425-500	1	1.48	2.08	104	LGM	20110818
GGC 49	15	*G. tumida*	425-500	1	2.02	1.32	117	LGM	20110818
GGC 49	15	*G. tumida*	425-500	1	1.95	1.22	99	LGM	20110818
GGC 49	5	*G. tumida*	425-500	1	1.49	-0.91	103		20110818
GGC 49	5	*G. tumida*	425-500	1	1.94	0.18	105		20110818

GGC 49	5	*G. tumida*	425-500	1	1.72	-0.04	117		20110818
GGC 49	5	*G. tumida*	425-500	1	1.50	-0.41	127		20110818
GGC 49	7	*G. tumida*	425-500	1	1.86	-0.28	163		20110818
GGC 49	7	*G. tumida*	425-500	1	1.96	-1.34	141		20110818
GGC 49	7	*G. tumida*	425-500	1	1.87	-0.67	129		20110818
GGC 49	7	*G. tumida*	425-500	1	1.49	-0.30	136		20110818
GGC 49	88	*G. tumida*	425-500	1	1.80	-1.05	110	MIS 5e	20120417
GGC 49	88	*G. tumida*	425-500	1	2.30	-0.36	93	MIS 5e	20120417
GGC 49	88	*G. tumida*	425-500	1	1.66	-0.23	91	MIS 5e	20120417
GGC 49	88	*G. tumida*	425-500	1	1.92	-0.05	121	MIS 5e	20120417
GGC 49	88	*G. tumida*	425-500	1	1.89	-0.77	104	MIS 5e	20120417
GGC 49	92	*G. tumida*	425-500	1	1.77	-1.02	147	MIS 5e	20120417
GGC 49	92	*G. tumida*	425-500	1	1.66	0.04	113	MIS 5e	20120417
GGC 49	92	*G. tumida*	425-500	1	1.24	-0.04	106	MIS 5e	20120417
GGC 49	92	*G. tumida*	425-500	1	1.94	0.07	127	MIS 5e	20120417
GGC 49	92	*G. tumida*	425-500	1	1.82	0.28	120	MIS 5e	20120417

GGC 49	97	*G. tumida*	425-500	1	1.93	-0.73	129	MIS 5e	20120417
GGC 49	97	*G. tumida*	425-500	1	1.86	0.46	124	MIS 5e	20120417
GGC 49	97	*G. tumida*	425-500	1	1.49	-0.23	141	MIS 5e	20120417
GGC 49	97	*G. tumida*	425-500	1	1.75	-1.09	129	MIS 5e	20120417
GGC 49	97	*G. tumida*	425-500	1	1.46	1.03	120	MIS 5e	20120417
GGC 49	100	*G. tumida*	425-500	1	1.79	0.46	103	MIS 5e	20120417
GGC 49	100	*G. tumida*	425-500	1	1.88	-0.74	130	MIS 5e	20120417
GGC 49	100	*G. tumida*	425-500	1	1.76	0.03	111	MIS 5e	20120417
GGC 49	100	*G. tumida*	425-500	1	1.69	0.57	131	MIS 5e	20120417
GGC 49	100	*G. tumida*	425-500	1	1.67	-0.11	130	MIS 5e	20120417
GGC 49	104	*G. tumida*	425-500	1	1.63	-0.93	145	MIS 5e	20120417
GGC 49	104	*G. tumida*	425-500	1	2.11	-0.03	106	MIS 5e	20120417
GGC 49	104	*G. tumida*	425-500	1	1.40	0.30	97	MIS 5e	20120417
GGC 49	104	*G. tumida*	425-500	1	1.62	-0.61	128	MIS 5e	20120417
GGC 49	104	*G. tumida*	425-500	1	1.75	0.16	121	MIS 5e	20120417
GGC 49	108	*G. tumida*	425-500	1	1.72	-0.14	146		20120426

GGC 49	108	*G. tumida*	425-500	1	1.75	0.21	151		20120426
GGC 49	108	*G. tumida*	425-500	1	1.69	1.30	146		20120426
GGC 49	108	*G. tumida*	425-500	1	1.96	0.09	135		20120426
GGC 49	108	*G. tumida*	425-500	1	1.72	0.73	119		20120426
GGC 49	112	*G. tumida*	425-500	1	1.83	0.74	155	MIS 6	20120426
GGC 49	112	*G. tumida*	425-500	1	1.59	0.18	136	MIS 6	20120426
GGC 49	112	*G. tumida*	425-500	1	1.68	1.82	134	MIS 6	20120426
GGC 49	112	*G. tumida*	425-500	1	1.81	0.92	147	MIS 6	20120426
GGC 49	112	*G. tumida*	425-500	1	1.74	1.16	128	MIS 6	20120426
GGC 49	117	*G. tumida*	425-500	1	1.81	0.70	148	MIS 6	20120426
GGC 49	117	*G. tumida*	425-500	1	1.75	0.22	128	MIS 6	20120426
GGC 49	117	*G. tumida*	425-500	1	1.64	0.98	108	MIS 6	20120426
GGC 49	117	*G. tumida*	425-500	1	1.40	0.93	131	MIS 6	20120426
GGC 49	117	*G. tumida*	425-500	1	1.81	0.26	107	MIS 6	20120426
GGC 49	122	*G. tumida*	425-500	1	1.81	-0.12	112	MIS 6	20120426
GGC 49	122	*G. tumida*	425-500	1	1.98	0.47	145	MIS 6	20120426

GGC 49	122	*G. tumida*	425-500	1	1.53	0.45	145	MIS 6	20120426
GGC 49	122	*G. tumida*	425-500	1	1.95	0.09	141	MIS 6	20120426
GGC 49	122	*G. tumida*	425-500	1	1.88	0.71	149	MIS 6	20120426
GGC 49	123	*G. tumida*	425-500	1	1.89	-0.08	150	MIS 6	20120426
GGC 49	123	*G. tumida*	425-500	1	1.72	0.35	158	MIS 6	20120426
GGC 49	123	*G. tumida*	425-500	1	1.76	0.60	130	MIS 6	20120426
GGC 49	123	*G. tumida*	425-500	1	1.45	1.50	133	MIS 6	20120426
GGC 49	123	*G. tumida*	425-500	1	1.89	0.29	129	MIS 6	20120426
GGC 49	1	*G. ruber*	250-355	10	1.26	-2.27	118	LH	20101020
GGC 49	3	*G. ruber*	250-355	10	1.45	-2.28	133		20101020
GGC 49	5	*G. ruber*	250-355	10	1.17	-1.85	135		20101020
GGC 49	7	*G. ruber*	250-355	10	1.19	-1.86	148		20101020
GGC 49	9	*G. ruber*	250-355	10	1.21	-1.85	147		20101020
GGC 49	11	*G. ruber*	250-355	10	1.12	-1.85	129		20101020
GGC 49	12	*G. ruber*	250-355	10	1.37	-1.54	142		20101020
GGC 49	13	*G. ruber*	250-355	10	1.08	-1.73	153		20101020

GGC 49	14	*G. ruber*	250-355	10	1.01	-1.33	126	LGM	20101020
GGC 49	16	*G. ruber*	250-355	10	1.27	-1.16	127	LGM	20101020
GGC 49	17	*G. ruber*	250-355	10	1.27	-1.06	133	LGM	20101020
GGC 49	19	*G. ruber*	250-355	10	1.59	-1.08	121		20101020
GGC 49	23	*G. ruber*	250-355	10	1.26	-1.13	108		20101020
GGC 49	24	*G. ruber*	250-355	10	1.15	-1.48	116		20101020
GGC 49	25	*G. ruber*	250-355	10	1.51	-1.27	137		20101020
GGC 49	26	*G. ruber*	250-355	10	1.15	-1.26	128		20101020
GGC 49	27	*G. ruber*	250-355	10	1.02	-1.30	129		20101020
GGC 49	29	*G. ruber*	250-355	10	1.31	-1.22	116		20101020
GGC 49	32	*G. ruber*	250-355	10	1.14	-1.36	131		20110913
GGC 49	32	*G. ruber*	250-355	10	1.13	-1.48	122		20110913
GGC 49	36	*G. ruber*	250-355	10	1.54	-1.43	125		20110913
GGC 49	36	*G. ruber*	250-355	10	1.27	-1.41	126		20110913
GGC 49	40	*G. ruber*	250-355	10	1.13	-1.43	119		20110913
GGC 49	40	*G. ruber*	250-355	10	1.36	-1.42	125		20110913

GGC 49	44	*G. ruber*	250-355	10	0.94	-1.61	104	20110913
GGC 49	44	*G. ruber*	250-355	10	1.13	-1.56	113	20110913
GGC 49	48	*G. ruber*	250-355	10	1.05	-1.53	111	20110913
GGC 49	48	*G. ruber*	250-355	10	0.90	-1.50	132	20110913
GGC 49	52	*G. ruber*	250-355	10	1.00	-1.42	108	20110913
GGC 49	52	*G. ruber*	250-355	10	0.95	-1.46	120	20110913
GGC 49	56	*G. ruber*	250-355	10	1.04	-1.27	123	20110913
GGC 49	56	*G. ruber*	250-355	10	0.88	-1.53	117	20110913
GGC 49	60	*G. ruber*	250-355	10	1.13	-1.50	110	20110913
GGC 49	60	*G. ruber*	250-355	10	1.25	-1.52	123	20110913
GGC 49	65	*G. ruber*	250-355	10	0.65	-1.76	116	20110914
GGC 49	65	*G. ruber*	250-355	10	1.17	-1.72	124	20110914
GGC 49	69	*G. ruber*	250-355	10	1.18	-1.88	136	20110914
GGC 49	69	*G. ruber*	250-355	10	1.26	-1.99	132	20110914
GGC 49	72	*G. ruber*	250-355	10	0.99	-1.79	123	20110914
GGC 49	72	*G. ruber*	250-355	10	0.80	-1.86	116	20110914

GGC 49	76	*G. ruber*	250-355	10	1.19	-2.06	129	20110914
GGC 49	76	*G. ruber*	250-355	10	0.81	-1.83	122	20110914
GGC 49	80	*G. ruber*	250-355	10	0.82	-1.99	132	20110914
GGC 49	80	*G. ruber*	250-355	10	0.73	-1.69	137	20110914
GGC 49	85	*G. ruber*	250-355	10	1.12	-1.86	145	20110914
GGC 49	85	*G. ruber*	250-355	10	1.06	-2.03	129	20110914
GGC 49	88	*G. ruber*	250-355	10	1.08	-2.01	156	20110914
GGC 49	88	*G. ruber*	250-355	10	1.18	-2.04	140	20110914
GGC 49	92	*G. ruber*	250-355	10	0.84	-1.83	142	20110914
GGC 49	92	*G. ruber*	250-355	10	1.00	-1.56	137	20110914
GGC 49	97	*G. ruber*	250-355	10	0.99	-2.12	142	20110914
GGC 49	97	*G. ruber*	250-355	10	1.11	-2.22	156	20110914
GGC 49	100	*G. ruber*	250-355	10	0.76	-1.92	140	20110914
GGC 49	100	*G. ruber*	250-355	10	0.73	-1.62	154	20110914
GGC 49	104	*G. ruber*	250-355	10	0.91	-1.49	151	20110914
GGC 49	14	*P. obliquiloculata*	355-425	1	1.41	0.63	42	20110622

GGC 49	14	*P. obliquiloculata*	355-425	1	1.65	0.01	44	20110622
GGC 49	14	*P. obliquiloculata*	355-425	1	1.48	0.81	37	20110622
GGC 49	15	*P. obliquiloculata*	355-425	1	1.46	0.12	39	20110622
GGC 49	15	*P. obliquiloculata*	355-425	1	1.41	-0.56	41	20110622
GGC 49	16	*P. obliquiloculata*	355-425	1	1.20	-0.01	42	20110622
GGC 49	16	*P. obliquiloculata*	355-425	1	1.40	0.85	36	20110622
GGC 49	17	*P. obliquiloculata*	355-425	1	1.40	0.22	33	20110622
GGC 49	17	*P. obliquiloculata*	355-425	1	1.63	0.27	33	20110622
GGC 49	17	*P. obliquiloculata*	355-425	1	1.37	-0.40	41	20110622
GGC 49	1	*P. obliquiloculata*	355-425	1	1.17	-1.60	56	20110627
GGC 49	1	*P. obliquiloculata*	355-425	1	1.47	-1.37	57	20110627
GGC 49	1	*P. obliquiloculata*	355-425	1	1.61	-1.28	37	20110627
GGC 49	1	*P. obliquiloculata*	355-425	1	1.30	-1.62	60	20110627
GGC 49	1	*P. obliquiloculata*	355-425	1	1.20	-0.83	67	20110627
GGC 49	1	*P. obliquiloculata*	355-425	1	1.01	-1.31	34	20110628
GGC 49	1	*P. obliquiloculata*	355-425	1	0.98	-1.16	46	20110628

GGC 49	1	*P. obliquiloculata*	355-425	1	1.06	-1.77	32	20110628
GGC 49	1	*P. obliquiloculata*	355-425	1	0.92	-1.91	35	20110628
GGC 49	1	*P. obliquiloculata*	355-425	1	1.64	-1.38	48	20110628
GGC 49	1	*C. wuellerstorfi*	>250	1	-0.11	4.12	30	20120507
GGC 49	3	*C. wuellerstorfi*	>250	1	-0.12	3.81	42	20120507
GGC 49	3	*C. wuellerstorfi*	>250	1	0.06	3.79	34	20120507
GGC 49	5	*C. wuellerstorfi*	>250	1	-0.04	3.93	22	20120507
GGC 49	7	*C. wuellerstorfi*	>250	1	0.10	3.47	32	20120507
GGC 49	7	*C. wuellerstorfi*	>250	1	-0.36	3.89	22	20120507
GGC 49	9	*C. wuellerstorfi*	>250	1	-0.17	4.02	41	20120507
GGC 49	9	*C. wuellerstorfi*	>250	1	0.01	3.60	39	20120507
GGC 49	9	*C. wuellerstorfi*	>250	1	0.14	2.95	40	20120507
GGC 49	12	*C. wuellerstorfi*	>250	1	-0.04	4.19	49	20120507
GGC 49	12	*C. wuellerstorfi*	>250	1	-0.14	4.10	35	20120507
GGC 49	12	*C. wuellerstorfi*	>250	1	0.14	3.63	30	20120507
GGC 49	13	*C. wuellerstorfi*	>250	1	-0.08	3.89	30	20120507

GGC 49	14	*C. wuellerstorfi*	>250	1	-0.02	3.99	45	20120507
GGC 49	14	*C. wuellerstorfi*	>250	1	-0.05	4.13	43	20120507
GGC 49	14	*C. wuellerstorfi*	>250	1	-0.10	4.16	45	20120507
GGC 49	16	*C. wuellerstorfi*	>250	1	-0.29	4.12	38	20120507
GGC 49	1	*C. wuellerstorfi*	>250	1	0.15	3.45	67	20120509
GGC 49	3	*C. wuellerstorfi*	>250	1	-0.11	3.92	61	20120509
GGC 49	5	*C. wuellerstorfi*	>250	1	0.13	2.94	101	20120509
GGC 49	5	*C. wuellerstorfi*	>250	1	0.40	2.32	66	20120509
GGC 49	7	*C. wuellerstorfi*	>250	1	-0.01	3.66	59	20120509
GGC 49	11	*C. wuellerstorfi*	>250	1	-0.01	3.47	66	20120509
GGC 49	11	*C. wuellerstorfi*	>250	1	-0.01	3.46	56	20120509
GGC 49	13	*C. wuellerstorfi*	>250	1	-0.08	3.94	59	20120509
GGC 49	13	*C. wuellerstorfi*	>250	1	-0.01	4.23	64	20120509
GGC 49	15	*C. wuellerstorfi*	>250	1	-0.08	4.06	69	20120509
GGC 49	15	*C. wuellerstorfi*	>250	1	-0.09	4.15	71	20120509
GGC 49	17	*C. wuellerstorfi*	>250	1	-0.09	4.32	167	20120509

GGC 49	17	*C. wuellerstorfi*	>250	1	-0.17	4.19	61	20120509
GGC 49	17	*C. wuellerstorfi*	>250	1	-0.05	3.99	68	20120509
GGC 49	19	*C. wuellerstorfi*	>250	1	-0.36	4.00	58	20120509
GGC 49	23	*C. wuellerstorfi*	>250	1	-0.11	4.22	62	20120509
GGC 49	25	*C. wuellerstorfi*	>250	1	-0.11	3.90	77	20120509
GGC 49	32	*C. wuellerstorfi*	>250	1	0.23	3.71	99	20120509
GGC 49	32	*C. wuellerstorfi*	>250	1	0.03	3.86	57	20120509
GGC 49	32	*C. wuellerstorfi*	>250	1	0.06	3.64	59	20120509
GGC 49	44	*C. wuellerstorfi*	>250	1	0.06	3.43	56	20120509
GGC 49	44	*C. wuellerstorfi*	>250	1	-0.08	3.72	139	20120509
GGC 49	25	*C. wuellerstorfi*	>250	1	-0.12	4.03	28	20120510
GGC 49	25	*C. wuellerstorfi*	>250	1	-0.18	4.00	23	20120510
GGC 49	27	*C. wuellerstorfi*	>250	1	0.03	3.80	26	20120510
GGC 49	29	*C. wuellerstorfi*	>250	1	0.28	3.27	32	20120510
GGC 49	29	*C. wuellerstorfi*	>250	1	-0.05	4.01	43	20120510
GGC 49	29	*C. wuellerstorfi*	>250	1	0.02	4.08	42	20120510

GGC 49	36	*C. wuellerstorfi*	>250	1	0.10	3.90	47	20120510
GGC 49	36	*C. wuellerstorfi*	>250	1	0.08	3.74	33	20120510
GGC 49	36	*C. wuellerstorfi*	>250	1	0.07	3.66	41	20120510
GGC 49	40	*C. wuellerstorfi*	>250	1	0.05	3.64	36	20120510
GGC 49	40	*C. wuellerstorfi*	>250	1	0.16	3.74	43	20120510
GGC 49	44	*C. wuellerstorfi*	>250	1	0.25	3.63	46	20120510
GGC 49	52	*C. wuellerstorfi*	>250	1	0.02	3.73	42	20120510
GGC 49	52	*C. wuellerstorfi*	>250	1	-0.19	3.86	47	20120510
GGC 49	52	*C. wuellerstorfi*	>250	1	0.07	3.74	33	20120510
GGC 49	40	*C. wuellerstorfi*	>250	1	-0.22	3.40	20	20120510
GGC 49	16	*C. wuellerstorfi*	>250	1	-0.02	4.29	25	20120510
GGC 49	19	*C. wuellerstorfi*	>250	1	0.01	4.13	33	20120510
GGC 49	19	*C. wuellerstorfi*	>250	1	-0.11	4.10	27	20120510
GGC 49	23	*C. wuellerstorfi*	>250	1	0.00	4.12	28	20120510
GGC 49	23	*C. wuellerstorfi*	>250	1	0.15	3.54	38	20120510
GGC 49	48	*C. wuellerstorfi*	>250	1	0.03	3.44	121	20120511

GGC 49	48	*C. wuellerstorfi*	>250	1	0.09	3.63	84	20120511
GGC 49	48	*C. wuellerstorfi*	>250	1	0.05	3.41	74	20120511
GGC 49	56	*C. wuellerstorfi*	>250	1	0.25	2.85	123	20120511
GGC 49	56	*C. wuellerstorfi*	>250	1	0.12	2.73	78	20120511
GGC 49	60	*C. wuellerstorfi*	>250	1	-0.05	3.28	165	20120511
GGC 49	60	*C. wuellerstorfi*	>250	1	0.31	3.04	60	20120511
GGC 49	65	*C. wuellerstorfi*	>250	1	0.32	3.29	160	20120511
GGC 49	65	*C. wuellerstorfi*	>250	1	0.35	2.94	146	20120511
GGC 49	65	*C. wuellerstorfi*	>250	1	-0.18	3.87	56	20120511
GGC 49	69	*C. wuellerstorfi*	>250	1	0.23	3.03	169	20120511
GGC 49	72	*C. wuellerstorfi*	>250	1	0.04	3.43	93	20120511
GGC 49	72	*C. wuellerstorfi*	>250	1	0.28	2.84	60	20120511
GGC 49	72	*C. wuellerstorfi*	>250	1	0.11	3.23	71	20120511
GGC 49	76	*C. wuellerstorfi*	>250	1	0.26	3.07	130	20120511
GGC 49	76	*C. wuellerstorfi*	>250	1	0.05	3.07	122	20120511
GGC 49	76	*C. wuellerstorfi*	>250	1	0.17	2.90	52	20120511

GGC 49	80	*C. wuellerstorfi*	>250	1	0.27	3.03	93	20120511
GGC 49	80	*C. wuellerstorfi*	>250	1	0.13	2.93	166	20120511
GGC 49	80	*C. wuellerstorfi*	>250	1	0.23	2.98	95	20120511
GGC 49	85	*C. wuellerstorfi*	>250	1	0.01	3.01	96	20120511
GGC 49	85	*C. wuellerstorfi*	>250	1	0.28	3.07	70	20120511
GGC 49	97	*C. wuellerstorfi*	>250	1	-0.11	3.68	65	20120511
GGC 49	97	*C. wuellerstorfi*	>250	1	-0.14	3.83	55	20120511
GGC 49	100	*C. wuellerstorfi*	>250	1	-0.13	3.59	51	20120511
GGC 49	104	*C. wuellerstorfi*	>250	1	-0.30	3.58	104	20120511
GGC 49	104	*C. wuellerstorfi*	>250	1	-0.31	3.69	72	20120511
GGC 49	104	*C. wuellerstorfi*	>250	1	-0.36	3.40	60	20120511
GGC 49	108	*C. wuellerstorfi*	>250	1	-0.35	3.81	60	20120511
GGC 49	108	*C. wuellerstorfi*	>250	1	-0.24	3.93	142	20120511
GGC 49	108	*C. wuellerstorfi*	>250	1	-0.35	4.08	58	20120511
GGC 49	112	*C. wuellerstorfi*	>250	1	-0.28	3.95	106	20120511
GGC 49	112	*C. wuellerstorfi*	>250	1	-0.36	3.73	57	20120511

GGC 49	112	*C. wuellerstorfi*	>250	1	-0.27	3.95	51	20120511
GGC 49	117	*C. wuellerstorfi*	>250	1	-0.27	3.88	92	20120511
GGC 49	117	*C. wuellerstorfi*	>250	1	-0.07	3.67	92	20120511
GGC 49	122	*C. wuellerstorfi*	>250	1	-0.32	3.82	157	20120511
GGC 49	123	*C. wuellerstorfi*	>250	1	-0.19	3.66	116	20120511
GGC 49	56	*C. wuellerstorfi*	>250	1	-0.05	3.48	48	20120514
GGC 49	60	*C. wuellerstorfi*	>250	1	-0.09	3.74	41	20120514
GGC 49	69	*C. wuellerstorfi*	>250	1	0.10	2.91	23	20120514
GGC 49	69	*C. wuellerstorfi*	>250	1	0.31	3.09	22	20120514
GGC 49	85	*C. wuellerstorfi*	>250	1	-0.15	3.92	49	20120514
GGC 49	88	*C. wuellerstorfi*	>250	1	0.24	3.09	29	20120514
GGC 49	88	*C. wuellerstorfi*	>250	1	0.09	2.83	30	20120514
GGC 49	88	*C. wuellerstorfi*	>250	1	0.05	3.05	23	20120514
GGC 49	92	*C. wuellerstorfi*	>250	1	0.11	3.13	26	20120514
GGC 49	92	*C. wuellerstorfi*	>250	1	0.01	3.32	25	20120514
GGC 49	92	*C. wuellerstorfi*	>250	1	-0.18	3.95	20	20120514

GGC 49	100	*C. wuellerstorfi*	>250	1	-0.25	4.06	37	20120514
GGC 49	100	*C. wuellerstorfi*	>250	1	-0.31	3.99	29	20120514
GGC 49	117	*C. wuellerstorfi*	>250	1	-0.26	3.86	48	20120514
GGC 49	122	*C. wuellerstorfi*	>250	1	-0.46	3.84	46	20120514
GGC 49	122	*C. wuellerstorfi*	>250	1	-0.26	3.90	20	20120514
GGC 49	128	*C. wuellerstorfi*	>250	1	-0.10	3.67	46	20120514
GGC 49	128	*C. wuellerstorfi*	>250	1	-0.20	3.42	40	20120514
GGC 49	128	*C. wuellerstorfi*	>250	1	-0.28	3.90	28	20120514
GGC 49	132	*C. wuellerstorfi*	>250	1	-0.18	3.47	44	20120514
GGC 49	132	*C. wuellerstorfi*	>250	1	-0.28	3.52	29	20120514
VM34-16TW	0	*G. tumida*	425-500	1	2.15	-0.43	139	20100424
VM34-16TW	0	*G. tumida*	425-500	1	1.69	0.55	143	20100424
VM34-16TW	0	*G. tumida*	425-500	1	2.03	0.31	132	20100424
VM34-16TW	0	*G. tumida*	425-500	1	1.89	0.21	140	20100424
VM34-16TW	0	*G. tumida*	425-500	1	1.81	0.27	154	20100424
VM34-16TW	0	*G. tumida*	425-500	1	1.74	-0.24	146	20100424

VM34-16TW	0	*G. tumida*	425-500	1	2.29	0.17	154	20100424
VM34-16TW	0	*G. tumida*	425-500	1	1.97	0.38	123	20100424
VM34-16TW	0	*G. tumida*	425-500	1	1.91	0.21	148	20100424
VM34-16TW	14	*G. ruber*	250-355	10	1.26	-1.78	138	20100424
VM34-16TW	12	*G. ruber*	250-355	10	1.08	-2.06	159	20100424
VM34-16TW	10	*G. ruber*	250-355	10	1.32	-2.30	131	20100424
VM34-16TW	8	*G. ruber*	250-355	10	1.34	-2.02	136	20100424
VM34-16TW	6	*G. ruber*	250-355	10	1.19	-1.78	167	20100424
VM34-16TW	4	*G. ruber*	250-355	10	1.21	-1.45	141	20100424
VM34-16TW	2	*G. ruber*	250-355	10	1.37	-1.38	152	20100424
VM34-16TW	0	*G. ruber*	250-355	10	1.25	-1.60	125	20100424
VM34-16	4	*G. tumida*	425-500	1	1.89	0.65	137	20080815
VM34-16	4	*G. tumida*	425-500	1	2.66	0.11	94	20080815
VM34-16	4	*G. tumida*	425-500	1	2.48	-0.28	113	20080815
VM34-16	8	*G. tumida*	425-500	1	2.05	-0.28	112	20080815
VM34-16	8	*G. tumida*	425-500	1	2.34	0.62	97	20080815

VM34-16	8	*G. tumida*	425-500	1	2.09	-0.62	110	20080815
VM34-16	12	*G. tumida*	425-500	1	2.01	-0.21	120	20080815
VM34-16	12	*G. tumida*	425-500	1	2.11	1.24	92	20080815
VM34-16	12	*G. tumida*	425-500	1	2.22	0.34	81	20080815
VM34-16	16	*G. tumida*	425-500	1	2.21	0.15	106	20080815
VM34-16	16	*G. tumida*	425-500	1	2.37	0.84	112	20080825
VM34-16	20	*G. tumida*	425-500	1	2.00	0.17	145	20080825
VM34-16	20	*G. tumida*	425-500	1	2.71	0.31	151	20080825
VM34-16	20	*G. tumida*	425-500	1	2.08	0.19	147	20080825
VM34-16	24	*G. tumida*	425-500	1	2.58	-0.35	126	20080825
VM34-16	24	*G. tumida*	425-500	1	2.55	-0.53	104	20080825
VM34-16	24	*G. tumida*	425-500	1	2.27	0.31	147	20080825
VM34-16	28	*G. tumida*	425-500	1	2.16	1.26	99	20080825
VM34-16	28	*G. tumida*	425-500	1	2.12	-0.03	107	20080825
VM34-16	28	*G. tumida*	425-500	1	2.61	-0.17	148	20080825
VM34-16	32	*G. tumida*	425-500	1	1.95	-0.47	164	20080825

VM34-16	32	*G. tumida*	425-500	1	2.09	-0.19	114	20080825
VM34-16	32	*G. tumida*	425-500	1	2.05	0.03	119	20080825
VM34-16	4	*G. tumida*	425-500	1	1.87	-0.02	117	20080825
VM34-16	4	*G. tumida*	425-500	1	2.25	0.58	92	20080825
VM34-16	4	*G. tumida*	425-500	1	1.86	0.50	143	20080825
VM34-16	12	*G. tumida*	425-500	1	1.65	1.69	98	20091009
VM34-16	12	*G. tumida*	425-500	1	2.29	0.43	104	20091009
VM34-16	12	*G. tumida*	425-500	1	2.14	0.90	114	20091009
VM34-16	12	*G. tumida*	425-500	1	1.90	-0.56	124	20091009
VM34-16	12	*G. tumida*	425-500	1	1.82	0.94	115	20091009
VM34-16	12	*G. tumida*	425-500	1	2.39	-0.35	111	20091009
VM34-16	12	*G. tumida*	425-500	1	2.33	0.27	120	20091009
VM34-16	36	*G. tumida*	425-500	1	1.99	-0.24	117	20100823
VM34-16	36	*G. tumida*	425-500	1	1.70	-0.01	117	20100823
VM34-16	36	*G. tumida*	425-500	1	1.95	-0.12	128	20100823
VM34-16	40	*G. tumida*	425-500	1	2.13	-0.55	150	20100823

VM34-16	40	*G. tumida*	425-500	1	1.87	-0.31	90	20100823
VM34-16	40	*G. tumida*	425-500	1	1.49	-0.16	147	20100823
VM34-16	44	*G. tumida*	425-500	1	2.13	-0.25	134	20100823
VM34-16	44	*G. tumida*	425-500	1	2.04	-0.53	121	20100823
VM34-16	44	*G. tumida*	425-500	1	1.71	-0.70	128	20100823
VM34-16	48	*G. tumida*	425-500	1	2.00	0.20	105	20100823
VM34-16	48	*G. tumida*	425-500	1	2.13	-0.21	142	20100823
VM34-16	48	*G. tumida*	425-500	1	2.20	0.06	106	20100823
VM34-16	4	*G. ruber*			0.24	-1.89	58	20081014
VM34-16	8	*G. ruber*			0.69	-1.58	58	20081014
VM34-16	12	*G. ruber*			0.25	-1.20	68	20081014
VM34-16	16	*G. ruber*			0.82	-1.27	73	20081014
VM34-16	20	*G. ruber*			0.99	-1.57	68	20081014
VM34-16	24	*G. ruber*			0.97	-1.45	70	20081014
VM34-16	28	*G. ruber*			1.13	-1.54	67	20081014
VM34-16	32	*G. ruber*			1.22	-1.59	73	20081014

VM34-16	36	*G. ruber*			0.59	-1.50	63	20081014
VM34-16	40	*G. ruber*			0.74	-1.13	64	20081014
VM34-16	44	*G. ruber*			0.94	-1.32	58	20081014
VM34-16	48	*G. ruber*			0.69	-1.42	57	20081014
VM34-16	50	*G. ruber*			0.66	-1.23	75	20081014
VM34-16	52	*G. ruber*			0.78	-1.37	61	20081014
VM34-16	56	*G. ruber*			0.69	-1.26	73	20081014
VM34-16	60	*G. ruber*			0.62	-1.10	66	20081014
VM34-14	4	*G. tumida*	425-500	1	1.80	0.81		20061222
VM34-14	8	*G. tumida*	425-500	1	2.50	-0.15		20061222
VM34-14	12	*G. tumida*	425-500	1	1.58	0.63		20061222
VM34-14	16	*G. tumida*	425-500	1	1.89	1.09		20061222
VM34-14	20	*G. tumida*	425-500	1	1.85	0.36		20061222
VM34-14	24	*G. tumida*	425-500	1	1.97	-0.27		20061222
VM34-14	28	*G. tumida*	425-500	1	1.63	-0.05		20061222
VM34-14	32	*G. tumida*	425-500	1	1.64	-0.48		20061222

VM34-14	36	*G. tumida*	425-500	1	1.58	0.58		20061222
VM34-14	40	*G. tumida*	425-500	1	1.58	-0.03		20061222
VM34-14	44	*G. tumida*	425-500	1	1.90	0.29		20061222
VM34-14	48	*G. tumida*	425-500	1	1.46	-0.52		20061222
VM34-14	52	*G. tumida*	425-500	1	1.49	0.13		20061222
VM34-14	56	*G. tumida*	425-500	1	1.59	0.37		20061222
VM34-14	60	*G. tumida*	425-500	1	1.47	-0.07		20061222
VM34-14	4	*G. tumida*	425-500	1	2.24	-0.09		20070817
VM34-14	8	*G. tumida*	425-500	1	1.92	0.50		20070817
VM34-14	12	*G. tumida*	425-500	1	1.93	0.07		20070817
VM34-14	16	*G. tumida*	425-500	1	2.08	0.47		20070817
VM34-14	20	*G. tumida*	425-500	1	2.26	0.78		20070817
VM34-14	24	*G. tumida*	425-500	1	2.26	-0.20		20070817
VM34-14	28	*G. tumida*	425-500	1	2.02	0.20		20070817
VM34-14	32	*G. tumida*	425-500	1	1.79	-0.05		20070817
VM34-14	36	*G. tumida*	425-500	1	1.69	0.14		20070817

VM34-14	40	*G. tumida*	425-500	1	1.86	-0.36	20070817
VM34-14	44	*G. tumida*	425-500	1	1.96	-1.15	20070817
VM34-14	48	*G. tumida*	425-500	1	1.87	-0.18	20070817
VM34-14	52	*G. tumida*	425-500	1	1.76	0.66	20070817
VM34-14	56	*G. tumida*	425-500	1	1.84	-0.11	20070817
VM34-14	60	*G. tumida*	425-500	1	1.46	0.36	20070817
VM34-14	4	*G. tumida*	425-500	1	2.25	0.24	20070817
VM34-14	8	*G. tumida*	425-500	1	2.05	0.11	20070817
VM34-14	12	*G. tumida*	425-500	1	2.20	0.46	20070817
VM34-14	16	*G. tumida*	425-500	1	2.25	-0.01	20070817
VM34-14	20	*G. tumida*	425-500	1	2.23	0.98	20070817
VM34-14	24	*G. tumida*	425-500	1	2.34	0.44	20070817
VM34-14	28	*G. tumida*	425-500	1	1.65	0.98	20070817
VM34-14	32	*G. tumida*	425-500	1	1.95	0.47	20070817
VM34-14	36	*G. tumida*	425-500	1	1.85	0.28	20070817
VM34-14	40	*G. tumida*	425-500	1	1.95	-0.53	20070817

VM34-14	44	*G. tumida*	425-500	1	1.72	0.51		20070817
VM34-14	48	*G. tumida*	425-500	1	1.46	0.19		20070817
VM34-14	52	*G. tumida*	425-500	1	1.61	0.31		20070817
VM34-14	56	*G. tumida*	425-500	1	1.73	0.09		20070817
VM34-14	60	*G. tumida*	425-500	1	1.81	0.00		20070817
VM34-14	16	*G. tumida*	425-500	1	2.36	-0.39	94	20081206
VM34-14	16	*G. tumida*	425-500	1	1.99	1.03	77	20081206
VM34-14	16	*G. tumida*	425-500	1	2.11	0.76	83	20081206
VM34-14	16	*G. tumida*	425-500	1	2.31	-0.11	117	20081206
VM34-14	16	*G. tumida*	425-500	1	1.96	0.90	82	20081206
VM34-14	0	*G. tumida*	425-500	1	1.85	-0.62	122	20090408
VM34-14	0	*G. tumida*	425-500	1	1.97	0.16	126	20090408
VM34-14	0	*G. tumida*	425-500	1	2.11	-0.47	103	20090408
VM34-14	0	*G. tumida*	425-500	1	1.83	-0.24	138	20090408
VM34-14	0	*G. tumida*	425-500	1	1.85	-0.68	111	20090408
VM34-14	0	*G. tumida*	425-500	1	2.04	-0.50	105	20090408

VM34-14	16	*G. ruber*	250-355	10	1.14	-1.85	77	20070916
VM34-14	20	*G. ruber*	250-355	10	0.79	-1.67	66	20070916
VM34-14	24	*G. ruber*	250-355	10	1.22	-1.20	96	20070916
VM34-14	28	*G. ruber*	250-355	10	1.35	-1.71	115	20070916
VM34-14	32	*G. ruber*	250-355	10	1.24	-1.44	46	20070916
VM34-14	36	*G. ruber*	250-355	10	1.00	-1.54	102	20070916
VM34-14	40	*G. ruber*	250-355	10	1.18	-2.13	84	20070916
VM34-14	44	*G. ruber*	250-355	10	1.06	-2.43	87	20070916
VM34-14	48	*G. ruber*	250-355	10	0.70	-1.47	65	20070916
VM34-14	52	*G. ruber*	250-355	10	0.87	-1.40	96	20070916
VM34-14	56	*G. ruber*	250-355	10	0.62	-1.28		20070916
VM34-14	60	*G. ruber*	250-355	10	0.83	-1.19	109	20070916
RC17-176TW	4	*G. tumida*	425-500	1	1.87	-0.66	138	20100409
RC17-176TW	4	*G. tumida*	425-500	1	2.04	0.32	131	20100409
RC17-176TW	4	*G. tumida*	425-500	1	1.53	-1.17	102	20100409
RC17-176TW	4	*G. tumida*	425-500	1	1.71	0.47	106	20100409

RC17-176TW	4	*G. tumida*	425-500	1	1.56	-1.12	137		20100409
RC17-176TW	4	*G. tumida*	425-500	1	1.70	-0.75	131		20100409
RC17-176	20	*G. ruber*	250-355	10	1.18	-1.52			20080121
RC17-176	30	*G. ruber*	250-355	10	1.48	-1.26			20080121
RC17-176	15	*G. ruber*	250-355	10	1.19	-2.14			20080121
RC17-176	25	*G. ruber*	250-355	10	1.34	-1.36		LGM	20080121
RC17-176	35	*G. ruber*	250-355	10	1.29	-1.49			20080121
RC17-176	45	*G. ruber*	250-355	10	1.48	-1.45			20080121
RC17-176	55	*G. ruber*	250-355	10	1.31	-1.59			20080121
RC17-176	40	*G. ruber*	250-355	10	1.43	-1.39			20080121
RC17-176	60	*G. ruber*	250-355	10	1.30	-1.56			20080121
RC17-176	65	*G. ruber*	250-355	10	1.05	-1.65	94		20120409
RC17-176	65	*G. ruber*	250-355	10	0.88	-1.39	101		20120409
RC17-176	70	*G. ruber*	250-355	10	1.01	-1.64	94		20120409
RC17-176	70	*G. ruber*	250-355	10	1.15	-1.57	90		20120409
RC17-176	75	*G. ruber*	250-355	10	1.40	-1.58	110		20120409

RC17-176	75	*G. ruber*	250-355	10	1.23	-1.61	116	20120409
RC17-176	80	*G. ruber*	250-355	10	1.28	-1.72	108	20120409
RC17-176	80	*G. ruber*	250-355	10	1.15	-1.67	104	20120409
RC17-176	85	*G. ruber*	250-355	10	1.30	-1.97	97	20120409
RC17-176	85	*G. ruber*	250-355	10	1.21	-1.81	107	20120409
RC17-176	95	*G. ruber*	250-355	10	1.46	-1.94	138	20120409
RC17-176	95	*G. ruber*	250-355	10	1.47	-1.65	120	20120409
RC17-176	102	*G. ruber*	250-355	10	1.34	-1.89	104	20120409
RC17-176	102	*G. ruber*	250-355	10	1.26	-1.99	102	20120409
RC17-176	105	*G. ruber*	250-355	10	1.17	-1.91	111	20120409
RC17-176	105	*G. ruber*	250-355	10	1.21	-1.89	119	20120409
RC17-176	110	*G. ruber*	250-355	10	1.09	-1.76	114	20120409
RC17-176	115	*G. ruber*	250-355	10	0.98	-1.81	111	20120409
RC17-176	115	*G. ruber*	250-355	10	0.90	-2.13	93	20120409
RC17-176	120	*G. ruber*	250-355	10	0.88	-1.92	111	20120409
RC17-176	120	*G. ruber*	250-355	10	0.65	-1.90	103	20120409

RC17-176	90	*G. ruber*	250-355	8	1.34	-2.00	80	20120409
RC17-176	125	*G. ruber*	250-355	10	0.73	-1.89	117	20120410
RC17-176	125	*G. ruber*	250-355	10	0.88	-1.70	133	20120410
RC17-176	130	*G. ruber*	250-355	10	0.79	-1.51	107	20120410
RC17-176	130	*G. ruber*	250-355	10	0.81	-1.38	110	20120410
RC17-176	135	*G. ruber*	250-355	10	0.55	-1.12	104	20120410
RC17-176	135	*G. ruber*	250-355	10	0.93	-1.24	132	20120410
RC17-176	140	*G. ruber*	250-355	10	0.72	-1.20	125	20120410
RC17-176	140	*G. ruber*	250-355	10	0.92	-1.04	145	20120410
RC17-176	145	*G. ruber*	250-355	10	1.01	-0.98	129	20120410
RC17-176	150	*G. ruber*	250-355	10	0.77	-0.99	121	20120410
RC17-176	155	*G. ruber*	250-355	10	0.83	-1.18	118	20120410
RC17-176	155	*G. ruber*	250-355	10	0.97	-1.19	122	20120410
RC17-176	160	*G. ruber*	250-355	10	0.76	-1.33	129	20120410
RC17-176	160	*G. ruber*	250-355	10	0.65	-1.15	121	20120410
RC17-176	165	*G. ruber*	250-355	10	0.94	-1.49	129	20120410

RC17-176	165	*G. ruber*	250-355	10	0.66	-1.34	117		20120410
RC17-176	175	*G. ruber*	250-355	10	1.10	-1.17	145		20120410
RC17-176	175	*G. ruber*	250-355	10	0.80	-1.27	125		20120410
RC17-176	145	*G. ruber*	250-355	10	1.09	-1.25	125		20120416
RC17-176	150	*G. ruber*	250-355	10	0.78	-1.12	105		20120416
RC17-176	15	*G. tumida*	425-500	1	1.75	-0.37			20071016
RC17-176	15	*G. tumida*	425-500	1	1.92	0.33			20071016
RC17-176	15	*G. tumida*	425-500	1	1.50	-0.32			20071016
RC17-176	20	*G. tumida*	425-500	1	1.93	0.32			20071016
RC17-176	20	*G. tumida*	425-500	1	2.44	0.61			20071016
RC17-176	20	*G. tumida*	425-500	1	1.69	0.53			20071016
RC17-176	25	*G. tumida*	425-500	1	1.97	0.17		LGM	20071016
RC17-176	25	*G. tumida*	425-500	1	2.09	0.22		LGM	20071016
RC17-176	25	*G. tumida*	425-500	1	1.87	0.23		LGM	20071016
RC17-176	30	*G. tumida*	425-500	1	1.99	-0.05			20071016
RC17-176	30	*G. tumida*	425-500	1	2.00	0.25			20071016

RC17-176	30	*G. tumida*	425-500	1	2.07	0.10	20071016
RC17-176	35	*G. tumida*	425-500	1	2.11	-0.19	20071016
RC17-176	35	*G. tumida*	425-500	1	1.94	-0.49	20071016
RC17-176	40	*G. tumida*	425-500	1	1.52	0.23	20071016
RC17-176	40	*G. tumida*	425-500	1	1.83	-0.26	20071016
RC17-176	40	*G. tumida*	425-500	1	1.95	0.52	20071016
RC17-176	45	*G. tumida*	425-500	1	1.32	0.01	20071016
RC17-176	45	*G. tumida*	425-500	1	2.07	-0.37	20071016
RC17-176	45	*G. tumida*	425-500	1	1.96	0.03	20071016
RC17-176	55	*G. tumida*	425-500	1	2.12	-0.31	20071016
RC17-176	55	*G. tumida*	425-500	1	1.93	-0.09	20071016
RC17-176	55	*G. tumida*	425-500	1	1.86	-0.18	20071016
RC17-176	60	*G. tumida*	425-500	1	1.71	-0.80	20071016
RC17-176	60	*G. tumida*	425-500	1	1.69	-0.33	20071016
RC17-176	60	*G. tumida*	425-500	1	1.80	0.00	20071016
RC17-176	65	*G. tumida*	425-500	1	1.81	-0.64	20071016

RC17-176	65	*G. tumida*	425-500	1	1.80	1.02		20071016
RC17-176	65	*G. tumida*	425-500	1	1.67	-0.42		20071016
RC17-176	30	*G. tumida*	425-500	1	2.04	-0.11	111	20081206
RC17-176	30	*G. tumida*	425-500	1	1.89	0.21	123	20081206
RC17-176	30	*G. tumida*	425-500	1	1.97	-0.05	101	20081206
RC17-176	30	*G. tumida*	425-500	1	2.14	-0.34	106	20081206
RC17-176	30	*G. tumida*	425-500	1	2.17	0.30	86	20081206
RC17-176	30	*G. tumida*	425-500	1	1.90	-0.06	114	20090123
RC17-176	30	*G. tumida*	425-500	1	1.91	-0.10	150	20090123
RC17-176	30	*G. tumida*	425-500	1	1.98	-0.07	120	20090123
RC17-176	30	*G. tumida*	425-500	1	1.75	-0.57	124	20090123
RC17-176	30	*G. tumida*	425-500	1	2.52	-0.57	121	20090123
RC17-176	1	*G. tumida*	425-500	1	1.98	-1.18	106	20090406
RC17-176	1	*G. tumida*	425-500	1	1.86	-1.35	109	20090406
RC17-176	1	*G. tumida*	425-500	1	2.01	0.15	100	20090406
RC17-176	1	*G. tumida*	425-500	1	1.80	0.56	115	20090406

RC17-176	1	*G. tumida*	425-500	1	2.01	0.38	113	20090406
RC17-176	1	*G. tumida*	425-500	1	1.84	-0.50	118	20090406
RC17-176	7	*G. tumida*	425-500	1	0.74	2.13	155	20091008
RC17-176	7	*G. tumida*	425-500	1	-1.36	1.95	164	20091008
RC17-176	7	*G. tumida*	425-500	1	-0.08	2.01	135	20091008
RC17-176	7	*G. tumida*	425-500	1	-1.14	1.94	136	20091008
RC17-176	7	*G. tumida*	425-500	1	0.61	1.50	147	20091008
RC17-176	75	*G. tumida*	425-500	1	2.37	-1.03	102	20101108
RC17-176	75	*G. tumida*	425-500	1	2.22	-0.44	115	20101108
RC17-176	80	*G. tumida*	425-500	1	1.77	0.48	153	20101108
RC17-176	80	*G. tumida*	425-500	1	1.72	-0.03	125	20101108
RC17-176	85	*G. tumida*	425-500	1	1.66	-0.45	114	20101108
RC17-176	85	*G. tumida*	425-500	1	1.60	-0.95	146	20101108
RC17-176	85	*G. tumida*	425-500	1	1.66	-0.63	114	20101108
RC17-176	90	*G. tumida*	425-500	1	1.96	-1.01	131	20101108
RC17-176	90	*G. tumida*	425-500	1	1.69	-0.43	132	20101108

RC17-176	90	*G. tumida*	425-500	1	2.02	-0.88	120		20101108
RC17-176	95	*G. tumida*	425-500	1	1.74	-0.88	126	MIS 5e	20101108
RC17-176	95	*G. tumida*	425-500	1	1.83	-0.88	114	MIS 5e	20101108
RC17-176	95	*G. tumida*	425-500	1	1.97	-0.39	114	MIS 5e	20101108
RC17-176	102	*G. tumida*	425-500	1	1.85	-1.21	128	MIS 5e	20101108
RC17-176	102	*G. tumida*	425-500	1	1.70	-0.57	112	MIS 5e	20101108
RC17-176	102	*G. tumida*	425-500	1	1.81	-0.90	112	MIS 5e	20101108
RC17-176	105	*G. tumida*	425-500	1	1.63	-1.29	157	MIS 5e	20101108
RC17-176	105	*G. tumida*	425-500	1	1.85	-0.54	130	MIS 5e	20101108
RC17-176	105	*G. tumida*	425-500	1	1.74	-1.22	142	MIS 5e	20101108
RC17-176	110	*G. tumida*	425-500	1	2.05	-0.48	139	MIS 5e	20101108
RC17-176	110	*G. tumida*	425-500	1	1.63	-1.26	96	MIS 5e	20101108
RC17-176	115	*G. tumida*	425-500	1	1.77	-0.08	120	MIS 5e	20101108
RC17-176	115	*G. tumida*	425-500	1	1.80	-1.09	114	MIS 5e	20101110
RC17-176	115	*G. tumida*	425-500	1	1.56	-0.96	101	MIS 5e	20101110
RC17-176	120	*G. tumida*	425-500	1	1.40	-1.40	122		20101110

RC17-176	120	*G. tumida*	425-500	1	1.18	-0.57	133		20101110
RC17-176	120	*G. tumida*	425-500	1	1.17	-0.44	128		20101110
RC17-176	125	*G. tumida*	425-500	1	1.55	0.37	145		20101110
RC17-176	125	*G. tumida*	425-500	1	1.24	-1.00	144		20101110
RC17-176	130	*G. tumida*	425-500	1	1.41	0.52	155		20101110
RC17-176	130	*G. tumida*	425-500	1	1.69	0.08	127		20101110
RC17-176	140	*G. tumida*	425-500	1	1.63	-0.33	136	MIS 6	20101110
RC17-176	140	*G. tumida*	425-500	1	1.43	-0.06	141	MIS 6	20101110
RC17-176	140	*G. tumida*	425-500	1	1.67	-0.07	126	MIS 6	20101110
RC17-176	150	*G. tumida*	425-500	1	1.21	0.33	135	MIS 6	20101110
RC17-176	150	*G. tumida*	425-500	1	1.75	-0.19	136	MIS 6	20101110
RC17-176	150	*G. tumida*	425-500	1	2.00	-0.41	124	MIS 6	20101110
RC17-176	160	*G. tumida*	425-500	1	1.62	0.12	125	MIS 6	20101110
RC17-176	160	*G. tumida*	425-500	1	1.14	0.20	134	MIS 6	20101110
RC17-176	75	*G. tumida*	425-500	1	2.13	-0.02	91		20101110
RC17-176	80	*G. tumida*	425-500	1	1.89	-1.00	109		20101110

RC17-176	25	*G. tumida*	425-500	1	1.94	0.42	109	LGM	20110504
RC17-176	25	*G. tumida*	425-500	1	2.19	-0.29	97	LGM	20110504
RC17-176	25	*G. tumida*	425-500	1	2.05	0.48	86	LGM	20110504
RC17-176	25	*G. tumida*	425-500	1	1.88	0.07	125	LGM	20110504
RC17-176	25	*G. tumida*	425-500	1	1.89	0.36	103	LGM	20110504
RC17-176	25	*G. tumida*	425-500	1	1.85	0.65	100	LGM	20110504
RC17-176	25	*G. tumida*	425-500	1	2.11	0.30	114	LGM	20110504
RC17-176	25	*G. tumida*	425-500	1	2.23	-0.04	113	LGM	20110504
RC17-176	25	*G. tumida*	425-500	1	2.00	-0.12	120	LGM	20110504
RC17-176	25	*G. tumida*	425-500	1	1.70	0.17	110	LGM	20110504
RC17-176	120	*G. tumida*	425-500	1	1.45	0.07	115		20110824
RC17-176	120	*G. tumida*	425-500	1	1.32	-0.68	115		20110824
RC17-176	120	*G. tumida*	425-500	1	1.02	-1.04	147		20110824
RC17-176	120	*G. tumida*	425-500	1	1.23	-0.74	159		20110824
RC17-176	120	*G. tumida*	425-500	1	1.69	0.07	132		20110824
RC17-176	120	*G. tumida*	425-500	1	1.28	0.61	110		20110824

RC17-176	120	*G. tumida*	425-500	1	1.20	-1.44	114	20110824
RC17-176	120	*G. tumida*	425-500	1	1.79	-1.51	138	20110824
RC17-176	120	*G. tumida*	425-500	1	1.87	-1.81	127	20110825
RC17-176	120	*G. tumida*	425-500	1	1.32	0.87	128	20110825
RC17-176	125	*G. tumida*	425-500	1	1.01	0.77	128	20110825
RC17-176	125	*G. tumida*	425-500	1	1.38	-1.11	122	20110825
RC17-176	125	*G. tumida*	425-500	1	1.39	-0.95	152	20110825
RC17-176	125	*G. tumida*	425-500	1	1.63	0.10	118	20110825
RC17-176	125	*G. tumida*	425-500	1	1.61	-1.13	135	20110825
RC17-176	125	*G. tumida*	425-500	1	1.25	-1.24	144	20110825
RC17-176	125	*G. tumida*	425-500	1	1.24	0.02	115	20110825
RC17-176	125	*G. tumida*	425-500	1	1.49	-1.56	139	20110825
RC17-176	125	*G. tumida*	425-500	1	1.58	1.23	147	20110825
RC17-176	125	*G. tumida*	425-500	1	1.17	0.83	114	20110825
RC17-176	130	*G. tumida*	425-500	1	1.83	-0.98	129	20110825
RC17-176	130	*G. tumida*	425-500	1	1.60	-0.17	148	20110825

RC17-176	130	*G. tumida*	425-500	1	1.72	-1.21	132		20110825
RC17-176	130	*G. tumida*	425-500	1	1.47	-0.06	152		20110825
RC17-176	130	*G. tumida*	425-500	1	1.82	0.20	125		20110825
RC17-176	130	*G. tumida*	425-500	1	1.45	0.37	152		20110825
RC17-176	130	*G. tumida*	425-500	1	2.11	-1.18	120		20110825
RC17-176	130	*G. tumida*	425-500	1	1.59	-0.11	158		20110825
RC17-176	135	*G. tumida*	425-500	1	1.70	0.45	155	MIS 6	20110826
RC17-176	135	*G. tumida*	425-500	1	1.43	-0.17	140	MIS 6	20110826
RC17-176	135	*G. tumida*	425-500	1	1.64	0.76	137	MIS 6	20110826
RC17-176	135	*G. tumida*	425-500	1	1.64	0.17	148	MIS 6	20110826
RC17-176	135	*G. tumida*	425-500	1	1.73	-0.37	133	MIS 6	20110826
RC17-176	135	*G. tumida*	425-500	1	1.56	-0.07	125	MIS 6	20110826
RC17-176	135	*G. tumida*	425-500	1	1.67	0.27	127	MIS 6	20110826
RC17-176	135	*G. tumida*	425-500	1	1.78	0.43	154	MIS 6	20110826
RC17-176	135	*G. tumida*	425-500	1	1.79	-0.02	146	MIS 6	20110826
RC17-176	135	*G. tumida*	425-500	1	1.33	0.51	137	MIS 6	20110826

RC17-176	140	*G. tumida*	425-500	1	1.86	-0.09	120	MIS 6	20110826
RC17-176	140	*G. tumida*	425-500	1	1.40	0.26	137	MIS 6	20110826
RC17-176	140	*G. tumida*	425-500	1	1.79	-0.52	125	MIS 6	20110826
RC17-176	140	*G. tumida*	425-500	1	1.89	0.03	145	MIS 6	20110826
RC17-176	140	*G. tumida*	425-500	1	1.60	-0.06	117	MIS 6	20110826
RC17-176	140	*G. tumida*	425-500	1	1.70	-0.33	130	MIS 6	20110826
RC17-176	140	*G. tumida*	425-500	1	1.09	-0.12	116	MIS 6	20110826
RC17-176	140	*G. tumida*	425-500	1	1.64	-0.03	128	MIS 6	20110826
RC17-176	25	*P. obliquiloculata*	355-425	1	1.46	-0.66	40		20111214
RC17-176	25	*P. obliquiloculata*	355-425	1	1.43	-0.58	38		20111214
RC17-176	25	*P. obliquiloculata*	355-425	1	0.94	-0.44	30		20111214
RC17-176	25	*P. obliquiloculata*	355-425	1	1.36	-1.53	43		20111214
RC17-176	25	*P. obliquiloculata*	355-425	1	1.29	-0.66	37		20111214
RC17-176	25	*P. obliquiloculata*	355-425	1	1.50	-1.72	43		20111214
RC17-176	25	*P. obliquiloculata*	355-425	1	1.28	-0.45	44		20111214
RC17-176	25	*P. obliquiloculata*	355-425	1	1.30	-0.40	43		20111214

RC17-176	25	*P. obliquiloculata*	355-425	1	1.34	-1.67	44	20111214
RC17-176	25	*P. obliquiloculata*	355-425	1	1.34	-0.66	34	20111214
RC17-176	7	*C. wuellerstorfi*	>250	1	-0.12	4.03	28	20100724
RC17-176	25	*C. wuellerstorfi*	>250	1	-0.02	3.95	48	20100724
RC17-176	25	*C. wuellerstorfi*	>250	1	-0.03	3.68	27	20100724
RC17-176	30	*C. wuellerstorfi*	>250	1	0.13	3.56	39	20100724
RC17-176	30	*C. wuellerstorfi*	>250	1	-0.07	3.92	20	20100724
RC17-176	35	*C. wuellerstorfi*	>250	1	0.16	3.51	36	20100724
RC17-176	45	*C. wuellerstorfi*	>250	1	0.14	3.45	39	20100724
RC17-176	45	*C. wuellerstorfi*	>250	1	0.07	3.60	38	20100724
RC17-176	55	*C. wuellerstorfi*	>250	1	0.09	3.32	28	20100724
RC17-176	60	*C. wuellerstorfi*	>250	1	-0.03	3.35	40	20100724
RC17-176	65	*C. wuellerstorfi*	>250	1	-0.27	3.36	35	20100724
RC17-176	65	*C. wuellerstorfi*	>250	1	-0.27	3.44	40	20100724
RC17-176	65	*C. wuellerstorfi*	>250	1	-0.15	3.55	45	20100724
RC17-176	70	*C. wuellerstorfi*	>250	1	-0.09	3.59	31	20100724

RC17-176	70	*C. wuellerstorfi*	>250	1	-0.03	3.34	32	20100724
RC17-176	75	*C. wuellerstorfi*	>250	1	-0.05	3.55	32	20100724
RC17-176	75	*C. wuellerstorfi*	>250	1	-0.25	3.32	35	20100724
RC17-176	75	*C. wuellerstorfi*	>250	1	0.06	2.88	35	20100724
RC17-176	85	*C. wuellerstorfi*	>250	1	0.09	2.85	41	20100724
RC17-176	95	*C. wuellerstorfi*	>250	1	0.21	3.19	27	20100724
RC17-176	105	*C. wuellerstorfi*	>250	1	0.08	3.05	30	20100724
RC17-176	110	*C. wuellerstorfi*	>250	1	0.16	2.89	31	20100724
RC17-176	110	*C. wuellerstorfi*	>250	1	-0.17	3.58	46	20100724
RC17-176	110	*C. wuellerstorfi*	>250	1	0.15	2.37	31	20100724
RC17-176	115	*C. wuellerstorfi*	>250	1	0.19	3.04	33	20100724
RC17-176	120	*C. wuellerstorfi*	>250	1	-0.21	3.81	20	20100724
RC17-176	125	*C. wuellerstorfi*	>250	1	-0.21	3.77	20	20100724
RC17-176	130	*C. wuellerstorfi*	>250	1	-0.49	3.71	24	20100724
RC17-176	140	*C. wuellerstorfi*	>250	1	-0.25	3.75	48	20100724
RC17-176	140	*C. wuellerstorfi*	>250	1	-0.20	3.99	46	20100724

RC17-176	140	*C. wuellerstorfi*	>250	1	-0.31	3.49	36		20100724
RC17-176	150	*C. wuellerstorfi*	>250	1	-0.28	3.74	45		20100724
RC17-176	160	*C. wuellerstorfi*	>250	1	-0.25	3.66	37		20100724
RC17-176	160	*C. wuellerstorfi*	>250	1	-0.29	3.38	48		20100724
RC17-176	25	*C. wuellerstorfi*	>250	1	-0.14	3.95	68		20100724
RC17-176	30	*C. wuellerstorfi*	>250	1	-0.10	4.08	87		20100724
RC17-176	45	*C. wuellerstorfi*	>250	1	0.18	3.58	75		20100724
RC17-176	70	*C. wuellerstorfi*	>250	1	0.14	3.26	61		20100724
RC17-176	85	*C. wuellerstorfi*	>250	1	0.06	2.53	57		20100724
RC17-176	85	*C. wuellerstorfi*	>250	1	0.28	3.06	142		20100724
RC17-176	95	*C. wuellerstorfi*	>250	1	-0.05	3.80	64		20100724
RC17-176	95	*C. wuellerstorfi*	>250	1	0.13	2.87	58		20100724
RC17-176	125	*C. wuellerstorfi*	>250	1	-0.27	3.77	77		20100724
RC17-176	130	*C. wuellerstorfi*	>250	1	-0.32	3.70	54		20100724
RC17-176	160	*C. wuellerstorfi*	>250	1	-0.30	3.77	69		20100724
VM24-110	4	*G. tumida*	425-500	1	1.81	-1.08			20070817

VM24-110	8	*G. tumida*	425-500	1	1.70	-0.49			20070817
VM24-110	12	*G. tumida*	425-500	1	1.91	-1.06			20070817
VM24-110	12	*G. tumida*	425-500	1	1.50	-0.49	155		20071027
VM24-110	12	*G. tumida*	425-500	1	1.46	-0.90	142		20071027
VM24-110	16	*G. tumida*	425-500	1	1.99	0.27	126		20071027
VM24-110	16	*G. tumida*	425-500	1	1.94	-1.12	134		20071027
VM24-110	20	*G. tumida*	425-500	1	1.79	-0.28	114		20071027
VM24-110	20	*G. tumida*	425-500	1	2.01	0.30	124		20071027
VM24-110	20	*G. tumida*	425-500	1	2.10	0.01	127		20071027
VM24-110	24	*G. tumida*	425-500	1	2.36	-0.09	136	LGM	20071027
VM24-110	24	*G. tumida*	425-500	1	1.98	0.45	135	LGM	20071027
VM24-110	24	*G. tumida*	425-500	1	1.25	-0.26	145	LGM	20071027
VM24-110	28	*G. tumida*	425-500	1	2.02	0.10	156		20071027
VM24-110	28	*G. tumida*	425-500	1	1.76	0.19	123		20071027
VM24-110	28	*G. tumida*	425-500	1	2.12	-0.09	137		20071027
VM24-110	32	*G. tumida*	425-500	1	1.95	-0.20	130		20071027

VM24-110	32	*G. tumida*	425-500	1	1.85	0.42			20071027
VM24-110	32	*G. tumida*	425-500	1	1.78	-0.20	98		20071027
VM24-110	36	*G. tumida*	425-500	1	1.58	0.39	138		20071027
VM24-110	36	*G. tumida*	425-500	1	1.67	0.68	156		20071027
VM24-110	36	*G. tumida*	425-500	1	1.71	-0.33	130		20071027
VM24-110	40	*G. tumida*	425-500	1	1.74	0.37	137		20071027
VM24-110	40	*G. tumida*	425-500	1	1.96	0.32	146		20071027
VM24-110	40	*G. tumida*	425-500	1	2.04	0.29	148		20071027
VM24-110	44	*G. tumida*	425-500	1	1.71	-0.27	121		20071027
VM24-110	44	*G. tumida*	425-500	1	1.69	-1.19	150		20071027
VM24-110	44	*G. tumida*	425-500	1	2.46	-0.57	155		20071027
VM24-110	48	*G. tumida*	425-500	1	2.05	0.04	152		20071027
VM24-110	48	*G. tumida*	425-500	1	2.02	-0.23	140		20071027
VM24-110	48	*G. tumida*	425-500	1	1.75	-0.17	134		20071027
VM24-110	52	*G. tumida*	425-500	1	1.97	0.21			20071027
VM24-110	52	*G. tumida*	425-500	1	1.92	-0.33	129		20071027

VM24-110	52	*G. tumida*	425-500	1	2.16	-0.07	144		20071027
VM24-110	56	*G. tumida*	425-500	1	1.92	-0.42	123		20071027
VM24-110	56	*G. tumida*	425-500	1	2.08	-0.30	139		20071027
VM24-110	56	*G. tumida*	425-500	1	1.87	-0.68	155		20071027
VM24-110	60	*G. tumida*	425-500	1	1.86	-0.08	112		20071027
VM24-110	60	*G. tumida*	425-500	1	1.97	-0.61	138		20071027
VM24-110	60	*G. tumida*	425-500	1	2.02	0.20	141		20071027
VM24-110	24	*G. tumida*	425-500	1	2.23	-0.16	66	LGM	20081206
VM24-110	24	*G. tumida*	425-500	1	2.06	0.59	116	LGM	20081206
VM24-110	24	*G. tumida*	425-500	1	2.30	0.59	85	LGM	20081206
VM24-110	24	*G. tumida*	425-500	1	1.69	0.46	131	LGM	20081206
VM24-110	24	*G. tumida*	425-500	1	2.07	0.35	127	LGM	20090123
VM24-110	24	*G. tumida*	425-500	1	1.86	0.33	101	LGM	20090123
VM24-110	24	*G. tumida*	425-500	1	2.52	-0.54	108	LGM	20090123
VM24-110	24	*G. tumida*	425-500	1	2.04	0.12	130	LGM	20090123
VM24-110	24	*G. tumida*	425-500	1	1.92	0.61	136	LGM	20090123

VM24-110	2	*G. tumida*	425-500	1	1.86	-1.28	117	20090408
VM24-110	2	*G. tumida*	425-500	1	1.62	-0.95	116	20090408
VM24-110	2	*G. tumida*	425-500	1	1.74	-1.25	118	20090408
VM24-110	2	*G. tumida*	425-500	1	1.78	-0.33	139	20090408
VM24-110	2	*G. tumida*	425-500	1	1.94	-0.90	109	20090408
VM24-110	2	*G. tumida*	425-500	1	1.93	-1.26	155	20090408
VM24-110	2	*G. tumida*	425-500	1	1.68	-0.97	134	20090408
VM24-110	4	*G. tumida*	425-500	1	1.71	-0.17	103	20100926
VM24-110	4	*G. tumida*	425-500	1	1.94	-1.56	97	20100926
VM24-110	4	*G. tumida*	425-500	1	2.25	-1.07	113	20100926
VM24-110	4	*G. tumida*	425-500	1	1.18	-2.14	111	20100926
VM24-110	4	*G. tumida*	425-500	1	1.81	-0.18	162	20100926
VM24-110	8	*G. tumida*	425-500	1	1.56	-0.48	131	20100926
VM24-110	8	*G. tumida*	425-500	1	1.52	-0.42	141	20100926
VM24-110	8	*G. tumida*	425-500	1	1.97	0.93	133	20100926
VM24-110	8	*G. tumida*	425-500	1	1.87	-1.50	109	20100926

VM24-110	16	*G. tumida*	425-500	1	1.55	-0.63	158	20100926
VM24-110	16	*G. tumida*	425-500	1	1.67	-0.87	122	20100926
VM24-110	16	*G. tumida*	425-500	1	1.67	-0.66	168	20100926
VM24-110	16	*G. tumida*	425-500	1	1.65	-0.20	147	20100926
VM24-110	20	*G. tumida*	425-500	1	2.32	-0.19	116	20100926
VM24-110	20	*G. tumida*	425-500	1	1.88	-0.32	112	20100926
VM24-110	64	*G. tumida*	425-500	1	1.65	-0.41	144	20101116
VM24-110	64	*G. tumida*	425-500	1	1.81	-0.60	139	20101116
VM24-110	68	*G. tumida*	425-500	1	1.62	0.08	116	20101116
VM24-110	68	*G. tumida*	425-500	1	1.90	-0.41	152	20101116
VM24-110	68	*G. tumida*	425-500	1	1.98	-0.91	108	20101116
VM24-110	72	*G. tumida*	425-500	1	1.94	-0.26	117	20101116
VM24-110	72	*G. tumida*	425-500	1	1.97	0.14	156	20101116
VM24-110	76	*G. tumida*	425-500	1	1.88	-0.60	131	20101116
VM24-110	76	*G. tumida*	425-500	1	1.93	-0.56	132	20101116
VM24-110	76	*G. tumida*	425-500	1	1.94	-0.56	120	20101116

VM24-110	80	*G. tumida*	425-500	1	1.70	0.41	126		20101116
VM24-110	80	*G. tumida*	425-500	1	1.96	-0.09	99		20101116
VM24-110	80	*G. tumida*	425-500	1	1.50	-0.53	98		20101116
VM24-110	84	*G. tumida*	425-500	1	1.63	0.10	143		20101116
VM24-110	84	*G. tumida*	425-500	1	2.08	-0.28	125		20101116
VM24-110	84	*G. tumida*	425-500	1	1.84	0.42	97		20101116
VM24-110	148	*G. tumida*	425-500	1	1.80	-0.28	85	MIS 5e	20101130
VM24-110	148	*G. tumida*	425-500	1	1.77	-1.07	118	MIS 5e	20101130
VM24-110	148	*G. tumida*	425-500	1	1.99	-0.51	100	MIS 5e	20101130
VM24-110	152	*G. tumida*	425-500	1	1.73	-0.68	131	MIS 5e	20101130
VM24-110	152	*G. tumida*	425-500	1	1.49	-0.78	122	MIS 5e	20101130
VM24-110	152	*G. tumida*	425-500	1	1.68	-0.88	92	MIS 5e	20101130
VM24-110	156	*G. tumida*	425-500	1	1.61	-1.06	145	MIS 5e	20101130
VM24-110	156	*G. tumida*	425-500	1	1.79	-1.34	123	MIS 5e	20101130
VM24-110	156	*G. tumida*	425-500	1	1.50	-1.11	165	MIS 5e	20101130
VM24-110	160	*G. tumida*	425-500	1	1.83	0.15	138	MIS 5e	20101130

VM24-110	160	*G. tumida*	425-500	1	1.38	-0.73	137	MIS 5e	20101130
VM24-110	160	*G. tumida*	425-500	1	1.24	0.09	115	MIS 5e	20101130
VM24-110	164	*G. tumida*	425-500	1	1.55	-1.54	120	MIS 5e	20101130
VM24-110	164	*G. tumida*	425-500	1	1.19	-0.83	112	MIS 5e	20101130
VM24-110	164	*G. tumida*	425-500	1	1.69	-1.07	141	MIS 5e	20101130
VM24-110	168	*G. tumida*	425-500	1	1.49	-0.94	144	MIS 5e	20101130
VM24-110	168	*G. tumida*	425-500	1	1.45	-0.96	132	MIS 5e	20101130
VM24-110	168	*G. tumida*	425-500	1	1.60	-1.31	105	MIS 5e	20101130
VM24-110	172	*G. tumida*	425-500	1	1.66	0.84	122		20101130
VM24-110	172	*G. tumida*	425-500	1	1.51	-0.67	140		20101130
VM24-110	172	*G. tumida*	425-500	1	1.44	-0.12	165		20101130
VM24-110	176	*G. tumida*	425-500	1	1.67	0.15	130	MIS 6	20101130
VM24-110	176	*G. tumida*	425-500	1	1.58	0.21	154	MIS 6	20101130
VM24-110	176	*G. tumida*	425-500	1	1.49	0.86	139	MIS 6	20101130
VM24-110	180	*G. tumida*	425-500	1	2.23	-0.66	131	MIS 6	20101201
VM24-110	180	*G. tumida*	425-500	1	2.03	0.47	141	MIS 6	20101201

VM24-110	180	*G. tumida*	425-500	1	2.06	-0.17	127	MIS 6	20101201
VM24-110	184	*G. tumida*	425-500	1	1.74	0.30	147	MIS 6	20101201
VM24-110	184	*G. tumida*	425-500	1	1.25	-0.76	155	MIS 6	20101201
VM24-110	184	*G. tumida*	425-500	1	1.54	0.02	154	MIS 6	20101201
VM24-110	188	*G. tumida*	425-500	1	1.36	-0.17	151	MIS 6	20101201
VM24-110	188	*G. tumida*	425-500	1	1.74	0.31	138	MIS 6	20101201
VM24-110	188	*G. tumida*	425-500	1	1.55	0.21	121	MIS 6	20101201
VM24-110	192	*G. tumida*	425-500	1	1.98	-0.53	148	MIS 6	20101201
VM24-110	192	*G. tumida*	425-500	1	1.50	-0.01	160	MIS 6	20101201
VM24-110	192	*G. tumida*	425-500	1	1.28	0.35	148	MIS 6	20101201
VM24-110	196	*G. tumida*	425-500	1	1.63	-1.58	103	MIS 6	20101201
VM24-110	196	*G. tumida*	425-500	1	1.85	0.46	152	MIS 6	20101201
VM24-110	196	*G. tumida*	425-500	1	1.73	0.16	132	MIS 6	20101201
VM24-110	200	*G. tumida*	425-500	1	1.53	-0.03	141	MIS 6	20101201
VM24-110	200	*G. tumida*	425-500	1	1.63	-0.30	127	MIS 6	20101201
VM24-110	120	*G. tumida*	425-500	1	1.86	-0.67	125		20101203

VM24-110	120	*G. tumida*	425-500	1	1.95	-0.62	129		20101203
VM24-110	120	*G. tumida*	425-500	1	1.83	-0.08	128		20101203
VM24-110	124	*G. tumida*	425-500	1	2.05	-0.65	123		20101203
VM24-110	124	*G. tumida*	425-500	1	1.75	-0.83	111		20101203
VM24-110	124	*G. tumida*	425-500	1	1.75	-0.38	112		20101203
VM24-110	128	*G. tumida*	425-500	1	1.97	-0.50	130		20101203
VM24-110	128	*G. tumida*	425-500	1	2.09	-1.02	135		20101203
VM24-110	128	*G. tumida*	425-500	1	1.90	-0.87	129		20101203
VM24-110	132	*G. tumida*	425-500	1	1.51	-0.85	118		20101203
VM24-110	132	*G. tumida*	425-500	1	1.59	-0.76	129		20101203
VM24-110	132	*G. tumida*	425-500	1	1.66	-0.01	118		20101203
VM24-110	136	*G. tumida*	425-500	1	1.56	-0.81	128		20101203
VM24-110	136	*G. tumida*	425-500	1	1.87	-0.46	124		20101203
VM24-110	136	*G. tumida*	425-500	1	1.49	-0.54	148		20101203
VM24-110	140	*G. tumida*	425-500	1	1.60	-0.63	127	MIS 5e	20101203
VM24-110	140	*G. tumida*	425-500	1	1.49	-0.63	137	MIS 5e	20101203

VM24-110	140	*G. tumida*	425-500	1	1.84	0.03	144	MIS 5e	20101203
VM24-110	144	*G. tumida*	425-500	1	1.85	-1.01	126	MIS 5e	20101203
VM24-110	144	*G. tumida*	425-500	1	1.90	-0.78	118	MIS 5e	20101203
VM24-110	144	*G. tumida*	425-500	1	1.50	-0.01	128	MIS 5e	20101203
VM24-110	160	*G. tumida*	425-500	1	2.27	-0.27	128	MIS 5e	20110902
VM24-110	160	*G. tumida*	425-500	1	1.46	-0.81	113	MIS 5e	20110902
VM24-110	160	*G. tumida*	425-500	1	1.51	0.36	151	MIS 5e	20110902
VM24-110	160	*G. tumida*	425-500	1	1.39	-1.19	112	MIS 5e	20110902
VM24-110	160	*G. tumida*	425-500	1	1.34	-0.16	104	MIS 5e	20110902
VM24-110	160	*G. tumida*	425-500	1	1.39	-1.18	119	MIS 5e	20110902
VM24-110	160	*G. tumida*	425-500	1	1.53	-0.41	104	MIS 5e	20110902
VM24-110	160	*G. tumida*	425-500	1	0.87	-1.45	123	MIS 5e	20110907
VM24-110	160	*G. tumida*	425-500	1	1.81	0.42	97	MIS 5e	20110907
VM24-110	160	*G. tumida*	425-500	1	1.68	0.13	121	MIS 5e	20110907
VM24-110	184	*G. tumida*	425-500	1	1.58	0.16	137	MIS 6	20110907
VM24-110	184	*G. tumida*	425-500	1	1.75	0.49	103	MIS 6	20110907

VM24-110	184	*G. tumida*	425-500	1	1.88	-0.16	130	MIS 6	20110907
VM24-110	184	*G. tumida*	425-500	1	1.63	0.37	108	MIS 6	20110907
VM24-110	184	*G. tumida*	425-500	1	1.91	0.14	158	MIS 6	20110907
VM24-110	184	*G. tumida*	425-500	1	1.75	0.37	117	MIS 6	20110907
VM24-110	184	*G. tumida*	425-500	1	1.25	0.59	92	MIS 6	20110907
VM24-110	184	*G. tumida*	425-500	1	1.46	0.10	118	MIS 6	20110907
VM24-110	184	*G. tumida*	425-500	1	1.74	0.25	105	MIS 6	20110907
VM24-110	184	*G. tumida*	425-500	1	1.82	0.24	112	MIS 6	20110907
VM24-110	200	*G. tumida*	425-500	1	1.85	0.16	160	MIS 6	20111111
VM24-110	200	*G. tumida*	425-500	1	1.50	0.60	139	MIS 6	20111111
VM24-110	200	*G. tumida*	425-500	1	1.73	-0.05	125	MIS 6	20111111
VM24-110	200	*G. tumida*	425-500	1	1.63	0.01	144	MIS 6	20111111
VM24-110	200	*G. tumida*	425-500	1	1.66	-0.88	139	MIS 6	20111111
VM24-110	200	*G. tumida*	425-500	1	1.52	0.36	134	MIS 6	20111111
VM24-110	204	*G. tumida*	425-500	1	1.82	-0.80	113	MIS 6	20111111
VM24-110	204	*G. tumida*	425-500	1	1.73	1.16	129	MIS 6	20111111

VM24-110	204	*G. tumida*	425-500	1	1.55	0.00	127	MIS 6	20111111
VM24-110	204	*G. tumida*	425-500	1	1.69	0.05	128	MIS 6	20111111
VM24-110	204	*G. tumida*	425-500	1	1.94	-0.35	137	MIS 6	20111111
VM24-110	204	*G. tumida*	425-500	1	1.85	-0.11	163	MIS 6	20111111
VM24-110	204	*G. tumida*	425-500	1	2.01	-0.46	135	MIS 6	20111111
VM24-110	204	*G. tumida*	425-500	1	1.65	0.14	122	MIS 6	20111111
VM24-110	204	*G. tumida*	425-500	1	2.15	-0.85	123	MIS 6	20111111
VM24-110	204	*G. tumida*	425-500	1	1.51	0.16	106	MIS 6	20111111
VM24-110	204	*G. tumida*	425-500	1	1.77	-0.01	123	MIS 6	20111111
VM24-110	208	*G. tumida*	425-500	1	2.05	-0.72	115	MIS 6	20111111
VM24-110	208	*G. tumida*	425-500	1	1.55	-0.49	140	MIS 6	20111111
VM24-110	208	*G. tumida*	425-500	1	1.75	0.38	134	MIS 6	20111111
VM24-110	208	*G. tumida*	425-500	1	1.51	0.16	132	MIS 6	20111111
VM24-110	208	*G. tumida*	425-500	1	1.29	1.56	145	MIS 6	20111114
VM24-110	208	*G. tumida*	425-500	1	1.33	1.46	105	MIS 6	20111114
VM24-110	208	*G. tumida*	425-500	1	1.75	0.12	154	MIS 6	20111114

VM24-110	208	*G. tumida*	425-500	1	1.45	0.82	111	MIS 6	20111114
VM24-110	208	*G. tumida*	425-500	1	2.11	0.18	156	MIS 6	20111114
VM24-110	212	*G. tumida*	425-500	1	1.75	-0.41	130	MIS 6	20111114
VM24-110	212	*G. tumida*	425-500	1	1.72	-0.96	134	MIS 6	20111114
VM24-110	212	*G. tumida*	425-500	1	1.91	-0.10	117	MIS 6	20111114
VM24-110	212	*G. tumida*	425-500	1	1.78	-1.14	127	MIS 6	20111114
VM24-110	212	*G. tumida*	425-500	1	1.67	0.62	115	MIS 6	20111114
VM24-110	212	*G. tumida*	425-500	1	1.40	-0.42	116	MIS 6	20111114
VM24-110	212	*G. tumida*	425-500	1	1.69	0.32	162	MIS 6	20111114
VM24-110	212	*G. tumida*	425-500	1	1.58	0.56	133	MIS 6	20111114
VM24-110	216	*G. tumida*	425-500	1	1.70	-0.35	136	MIS 6	20111114
VM24-110	216	*G. tumida*	425-500	1	1.87	-0.66	149	MIS 6	20111114
VM24-110	216	*G. tumida*	425-500	1	1.70	0.25	150	MIS 6	20111114
VM24-110	216	*G. tumida*	425-500	1	1.75	0.65	130	MIS 6	20111114
VM24-110	216	*G. tumida*	425-500	1	1.49	0.11	133	MIS 6	20111114
VM24-110	216	*G. tumida*	425-500	1	1.55	0.37	151	MIS 6	20111114

VM24-110	216	*G. tumida*	425-500	1	1.58	0.99	141	MIS 6	20111115
VM24-110	216	*G. tumida*	425-500	1	1.69	0.20	114	MIS 6	20111115
VM24-110	220	*G. tumida*	425-500	1	1.46	-0.47	123	MIS 6	20111115
VM24-110	220	*G. tumida*	425-500	1	1.82	0.06	93	MIS 6	20111115
VM24-110	220	*G. tumida*	425-500	1	2.02	-0.45	110	MIS 6	20111115
VM24-110	220	*G. tumida*	425-500	1	1.38	1.67	103	MIS 6	20111115
VM24-110	220	*G. tumida*	425-500	1	1.83	0.16	119	MIS 6	20111115
VM24-110	220	*G. tumida*	425-500	1	1.69	-0.71	152	MIS 6	20111115
VM24-110	220	*G. tumida*	425-500	1	1.34	0.15	87	MIS 6	20111115
VM24-110	220	*G. tumida*	425-500	1	1.59	0.83	135	MIS 6	20111115
VM24-110	220	*G. tumida*	425-500	1	1.44	-0.35	122	MIS 6	20111115
VM24-110	20	*G. ruber*	250-355	8	1.48	-1.77			20080121
VM24-110	24	*G. ruber*	250-355	10	1.26	-1.11		LGM	20080121
VM24-110	28	*G. ruber*	250-355	10	1.45	-1.35			20080121
VM24-110	32	*G. ruber*	250-355	10	1.28	-1.33			20080121
VM24-110	36	*G. ruber*	250-355	3	1.27	-1.45			20080121

VM24-110	44	*G. ruber*	250-355	10	1.53	-1.44			20080121
VM24-110	48	*G. ruber*	250-355	10	1.31	-1.54			20080121
VM24-110	52	*G. ruber*	250-355	10	1.52	-1.73			20080121
VM24-110	56	*G. ruber*	250-355	10	1.34	-1.80			20080121
VM24-110	60	*G. ruber*	250-355	10	1.34	-1.65			20080121
VM24-110	24	*G. ruber*	250-355	10	1.49	-1.19	121	LGM	20091117
VM24-110	20	*G. ruber*	250-355	10	1.21	-1.90	117		20091117
VM24-110	16	*G. ruber*	250-355	10	1.27	-2.33	109		20091117
VM24-110	12	*G. ruber*	250-355	10	1.52	-2.50	117		20091117
VM24-110	8	*G. ruber*	250-355	10	1.50	-2.50	106		20091117
VM24-110	4	*G. ruber*	250-355	10	1.42	-2.33	112		20091117
VM24-110	2	*G. ruber*	250-355	10	1.40	-2.14	119		20091117
VM24-110	32	*G. ruber*	250-355	10	1.46	-1.47	120		20091117
VM24-110	28	*G. ruber*	250-355	10	1.26	-1.56	119		20091117
VM24-110	64	*G. ruber*	250-355	10	1.43	-1.72	113		20101118
VM24-110	64	*G. ruber*	250-355	10	1.30	-1.75	117		20101118

VM24-110	68	*G. ruber*	250-355	10	1.19	-1.68	128	20101118
VM24-110	68	*G. ruber*	250-355	10	1.26	-1.68	122	20101118
VM24-110	72	*G. ruber*	250-355	10	1.20	-1.66	167	20101118
VM24-110	72	*G. ruber*	250-355	10	0.98	-1.75	124	20101118
VM24-110	76	*G. ruber*	250-355	10	1.14	-1.61	118	20101118
VM24-110	76	*G. ruber*	250-355	10	1.02	-1.67	119	20101118
VM24-110	80	*G. ruber*	250-355	10	1.20	-1.73	117	20101118
VM24-110	80	*G. ruber*	250-355	10	1.15	-1.58	111	20101118
VM24-110	84	*G. ruber*	250-355	10	1.10	-1.71	106	20101118
VM24-110	84	*G. ruber*	250-355	10	1.17	-1.67	107	20101118
VM24-110	88	*G. ruber*	250-355	10	1.07	-1.74	101	20101118
VM24-110	88	*G. ruber*	250-355	10	1.18	-1.65	105	20101118
VM24-110	92	*G. ruber*	250-355	10	1.49	-1.80	104	20101118
VM24-110	92	*G. ruber*	250-355	10	1.34	-1.75	102	20101118
VM24-110	96	*G. ruber*	250-355	10	1.49	-1.83	109	20101118
VM24-110	96	*G. ruber*	250-355	10	1.23	-1.67	125	20101118

VM24-110	100	*G. ruber*	250-355	10	1.46	-2.01	115	20101118
VM24-110	100	*G. ruber*	250-355	10	1.31	-2.13	93	20101118
VM24-110	104	*G. ruber*	250-355	10	1.36	-2.02	110	20101118
VM24-110	104	*G. ruber*	250-355	10	1.41	-1.84	128	20101118
VM24-110	108	*G. ruber*	250-355	10	1.55	-2.03	107	20101118
VM24-110	108	*G. ruber*	250-355	10	1.31	-2.01	109	20101118
VM24-110	112	*G. ruber*	250-355	10	1.44	-2.12	115	20101118
VM24-110	116	*G. ruber*	250-355	10	1.00	-1.82	97	20101118
VM24-110	116	*G. ruber*	250-355	10	1.20	-2.10	117	20101118
VM24-110	120	*G. ruber*	250-355	10	1.52	-2.14	133	20101118
VM24-110	120	*G. ruber*	250-355	10	1.24	-2.07	133	20101118
VM24-110	124	*G. ruber*	250-355	10	1.26	-1.69	131	20101118
VM24-110	124	*G. ruber*	250-355	10	1.23	-2.02	136	20101118
VM24-110	128	*G. ruber*	250-355	10	1.16	-1.77	121	20101118
VM24-110	128	*G. ruber*	250-355	10	1.60	-2.16	142	20101118
VM24-110	162	*G. ruber*	250-355	10	1.39	-2.01	136	20101118

VM24-110	162	*G. ruber*	250-355	10	1.43	-2.02	123	20101118
VM24-110	136	*G. ruber*	250-355	10	1.40	-2.10	106	20101118
VM24-110	136	*G. ruber*	250-355	10	1.15	-2.06	114	20101118
VM24-110	140	*G. ruber*	250-355	10	1.27	-2.15	142	20101122
VM24-110	140	*G. ruber*	250-355	10	1.31	-2.10	111	20101122
VM24-110	144	*G. ruber*	250-355	10	1.26	-2.19	102	20101122
VM24-110	144	*G. ruber*	250-355	10	1.27	-2.09	102	20101122
VM24-110	148	*G. ruber*	250-355	10	1.42	-2.03	117	20101122
VM24-110	148	*G. ruber*	250-355	10	1.58	-2.08	113	20101122
VM24-110	152	*G. ruber*	250-355	10	1.02	-2.10	105	20101122
VM24-110	152	*G. ruber*	250-355	10	1.18	-1.97	132	20101122
VM24-110	156	*G. ruber*	250-355	10	1.44	-2.32	143	20101122
VM24-110	156	*G. ruber*	250-355	10	1.30	-2.30	157	20101122
VM24-110	160	*G. ruber*	250-355	10	1.01	-2.43	118	20101122
VM24-110	160	*G. ruber*	250-355	10	1.25	-2.46	139	20101122
VM24-110	164	*G. ruber*	250-355	10	1.18	-2.29	135	20101122

VM24-110	164	*G. ruber*	250-355	10	1.00	-2.19	132	20101122
VM24-110	168	*G. ruber*	250-355	10	0.66	-2.29	101	20101122
VM24-110	172	*G. ruber*	250-355	10	0.86	-1.83	107	20101122
VM24-110	172	*G. ruber*	250-355	10	0.95	-1.77	138	20101122
VM24-110	176	*G. ruber*	250-355	10	1.00	-1.65	141	20101122
VM24-110	176	*G. ruber*	250-355	10	1.03	-1.64	129	20101122
VM24-110	180	*G. ruber*	250-355	10	1.04	-1.38	122	20101122
VM24-110	180	*G. ruber*	250-355	10	1.02	-1.58	125	20101122
VM24-110	184	*G. ruber*	250-355	10	1.06	-1.35	111	20101122
VM24-110	184	*G. ruber*	250-355	10	0.78	-1.24	124	20101122
VM24-110	188	*G. ruber*	250-355	10	0.89	-1.37	131	20101124
VM24-110	188	*G. ruber*	250-355	10	1.04	-1.46	115	20101124
VM24-110	192	*G. ruber*	250-355	10	0.79	-1.53	105	20101124
VM24-110	192	*G. ruber*	250-355	10	0.88	-1.54	101	20101124
VM24-110	196	*G. ruber*	250-355	10	0.91	-1.30	163	20101124
VM24-110	196	*G. ruber*	250-355	10	0.94	-1.46	126	20101124

VM24-110	200	*G. ruber*	250-355	10	0.90	-1.35	114	20101124
VM24-110	200	*G. ruber*	250-355	10	0.91	-1.29	110	20101124
VM24-110	204	*G. ruber*	250-355	10	0.95	-1.43	118	20101124
VM24-110	204	*G. ruber*	250-355	10	0.65	-1.27	118	20101124
VM24-110	208	*G. ruber*	250-355	10	0.64	-1.34	102	20101124
VM24-110	208	*G. ruber*	250-355	10	0.84	-1.43	103	20101124
VM24-110	212	*G. ruber*	250-355	10	1.05	-1.32	104	20101124
VM24-110	212	*G. ruber*	250-355	10	1.05	-1.39	138	20101124
VM24-110	216	*G. ruber*	250-355	10	0.92	-1.58	125	20101124
VM24-110	216	*G. ruber*	250-355	10	0.77	-1.52	100	20101124
VM24-110	220	*G. ruber*	250-355	10	1.06	-1.53	102	20101124
VM24-110	220	*G. ruber*	250-355	10	0.93	-1.73	136	20101124
VM24-110	224	*G. ruber*	250-355	10	1.04	-1.47	120	20101124
VM24-110	224	*G. ruber*	250-355	10	0.95	-1.61	127	20101124
VM24-110	228	*G. ruber*	250-355	10	0.96	-1.78	112	20101124
VM24-110	228	*G. ruber*	250-355	10	0.97	-1.71	107	20101124

VM24-110	232	*G. ruber*	250-355	10	0.97	-1.80	97	20101124
VM24-110	232	*G. ruber*	250-355	10	1.10	-1.64	130	20101124
VM24-110	236	*G. ruber*	250-355	10	1.07	-1.77	118	20101124
VM24-110	236	*G. ruber*	250-355	10	1.00	-1.67	101	20101124
VM24-110	240	*G. ruber*	250-355	10	0.86	-1.55	105	20101124
VM24-110	240	*G. ruber*	250-355	10	0.69	-1.68	114	20101124
VM24-110	244	*G. ruber*	250-355	10	1.04	-1.57	123	20101124
VM24-110	244	*G. ruber*	250-355	10	0.90	-1.66	114	20101124
VM24-110	248	*G. ruber*	250-355	10	0.92	-1.67	120	20101124
VM24-110	248	*G. ruber*	250-355	10	1.24	-1.70	100	20101124
VM24-110	252	*G. ruber*	250-355	10	1.01	-1.55	108	20101124
VM24-110	252	*G. ruber*	250-355	10	0.88	-1.49	90	20101124
VM24-110	112	*G. ruber*	250-355	10	1.41	-2.03	120	20101124
VM24-110	24	*P. obliquiloculata*	355-425	1	1.36	-0.07	72	20110622
VM24-110	24	*P. obliquiloculata*	355-425	1	1.07	-1.80	52	20110622
VM24-110	24	*P. obliquiloculata*	355-425	1	1.45	-0.38	52	20111121

VM24-110	24	*P. obliquiloculata*	355-425	1	1.40	-0.18	42	20111121
VM24-110	24	*P. obliquiloculata*	355-425	1	1.26	-1.68	49	20111121
VM24-110	24	*P. obliquiloculata*	355-425	1	1.35	-0.03	50	20111121
VM24-110	24	*P. obliquiloculata*	355-425	1	1.57	-1.10	41	20111121
VM24-110	24	*P. obliquiloculata*	355-425	1	1.42	0.01	38	20111121
VM24-110	24	*P. obliquiloculata*	355-425	1	1.31	-0.01	35	20111121
VM24-110	24	*P. obliquiloculata*	355-425	1	1.04	-0.35	23	20111214
VM24-110	24	*P. obliquiloculata*	355-425	1	1.40	-0.08	40	20111214
VM24-110	24	*P. obliquiloculata*	355-425	1	1.20	0.30	31	20111214
VM24-110	24	*P. obliquiloculata*	355-425	1	1.13	-0.05	29	20111214
VM24-109	1	*G. tumida*	425-500	1	1.89	-0.26	148	20090406
VM24-109	1	*G. tumida*	425-500	1	1.97	-0.84	156	20090406
VM24-109	1	*G. tumida*	425-500	1	1.86	-0.79	163	20090406
VM24-109	1	*G. tumida*	425-500	1	1.72	-1.75	108	20090406
VM24-109	1	*G. tumida*	425-500	1	1.95	-0.89	116	20090408
VM24-109	1	*G. tumida*	425-500	1	1.77	-0.73	162	20090408

VM24-109	180	*G. tumida*	425-500	1	1.56	-1.02	139	20120501
VM24-109	180	*G. tumida*	425-500	1	1.38	-0.93	133	20120501
VM24-109	180	*G. tumida*	425-500	1	1.49	-0.74	139	20120501
VM24-109	180	*G. tumida*	425-500	1	1.77	-0.87	129	20120501
VM24-109	180	*G. tumida*	425-500	1	2.05	-0.95	117	20120501
VM24-109	190	*G. tumida*	425-500	1	1.83	-1.09	155	20120501
VM24-109	190	*G. tumida*	425-500	1	1.64	-0.73	132	20120501
VM24-109	190	*G. tumida*	425-500	1	1.79	-0.24	129	20120501
VM24-109	190	*G. tumida*	425-500	1	1.61	-1.11	131	20120501
VM24-109	190	*G. tumida*	425-500	1	1.64	-0.24	102	20120501
VM24-109	200	*G. tumida*	425-500	1	1.57	-0.14	138	20120501
VM24-109	200	*G. tumida*	425-500	1	1.64	-0.53	111	20120501
VM24-109	200	*G. tumida*	425-500	1	1.74	-0.96	141	20120501
VM24-109	200	*G. tumida*	425-500	1	1.75	-0.33	111	20120501
VM24-109	200	*G. tumida*	425-500	1	1.65	-0.48	105	20120501
VM24-109	210	*G. tumida*	425-500	1	1.59	1.01	125	20120501

VM24-109	210	*G. tumida*	425-500	1	1.36	1.16	154	20120501
VM24-109	210	*G. tumida*	425-500	1	1.40	0.53	159	20120501
VM24-109	210	*G. tumida*	425-500	1	1.30	-0.67	134	20120501
VM24-109	210	*G. tumida*	425-500	1	1.56	1.07	144	20120501
VM24-109	220	*G. tumida*	425-500	1	1.70	0.78	123	20120501
VM24-109	220	*G. tumida*	425-500	1	1.97	-0.19	125	20120501
VM24-109	220	*G. tumida*	425-500	1	1.81	-0.23	143	20120501
VM24-109	220	*G. tumida*	425-500	1	1.78	0.41	157	20120501
VM24-109	220	*G. tumida*	425-500	1	1.47	0.29	128	20120501
VM24-109	230	*G. tumida*	425-500	1	1.93	-0.05	122	20120502
VM24-109	230	*G. tumida*	425-500	1	1.79	0.30	161	20120502
VM24-109	230	*G. tumida*	425-500	1	1.69	0.32	151	20120502
VM24-109	230	*G. tumida*	425-500	1	1.63	-0.06	124	20120502
VM24-109	230	*G. tumida*	425-500	1	1.75	0.44	119	20120502
VM24-109	240	*G. tumida*	425-500	1	1.69	0.57	131	20120502
VM24-109	240	*G. tumida*	425-500	1	1.76	0.65	112	20120502

VM24-109	240	*G. tumida*	425-500	1	1.69	0.48	160	20120502
VM24-109	240	*G. tumida*	425-500	1	1.79	0.09	154	20120502
VM24-109	240	*G. tumida*	425-500	1	1.64	-0.37	144	20120502
VM24-109	250	*G. tumida*	425-500	1	1.62	-0.18	134	20120502
VM24-109	250	*G. tumida*	425-500	1	1.62	0.30	121	20120502
VM24-109	250	*G. tumida*	425-500	1	1.72	-0.28	147	20120502
VM24-109	250	*G. tumida*	425-500	1	1.52	-0.53	144	20120502
VM24-109	250	*G. tumida*	425-500	1	1.70	-0.01	111	20120502
VM24-109	80	*G. ruber*	250-355	10	1.32	-1.65	92	20120412
VM24-109	80	*G. ruber*	250-355	10	1.34	-1.30	94	20120412
VM24-109	90	*G. ruber*	250-355	10	1.43	-1.48	103	20120412
VM24-109	90	*G. ruber*	250-355	10	1.39	-1.76	125	20120412
VM24-109	100	*G. ruber*	250-355	10	1.25	-1.46	100	20120412
VM24-109	100	*G. ruber*	250-355	10	1.26	-1.68	99	20120412
VM24-109	110	*G. ruber*	250-355	10	1.22	-1.49	100	20120412
VM24-109	110	*G. ruber*	250-355	10	1.26	-1.66	105	20120412

VM24-109	120	*G. ruber*	250-355	10	1.27	-1.52	88	20120412
VM24-109	120	*G. ruber*	250-355	10	1.32	-1.57	92	20120412
VM24-109	130	*G. ruber*	250-355	10	1.52	-2.00	100	20120412
VM24-109	130	*G. ruber*	250-355	10	1.45	-1.99	76	20120412
VM24-109	140	*G. ruber*	250-355	10	1.47	-1.95	102	20120412
VM24-109	140	*G. ruber*	250-355	10	1.44	-1.85	103	20120412
VM24-109	150	*G. ruber*	250-355	10	1.47	-1.77	86	20120412
VM24-109	150	*G. ruber*	250-355	10	1.27	-1.86	95	20120412
VM24-109	145	*G. ruber*	250-355	10	1.53	-1.98	93	20120412
VM24-109	145	*G. ruber*	250-355	10	1.41	-1.89	96	20120412
VM24-109	155	*G. ruber*	250-355	10	1.75	-1.97	94	20120412
VM24-109	155	*G. ruber*	250-355	10	1.72	-1.93	88	20120412
VM24-109	160	*G. ruber*	250-355	10	1.80	-1.99	96	20120416
VM24-109	160	*G. ruber*	250-355	10	1.76	-1.91	115	20120416
VM24-109	170	*G. ruber*	250-355	10	1.67	-2.02	107	20120416
VM24-109	170	*G. ruber*	250-355	10	1.49	-1.97	113	20120416

VM24-109	180	*G. ruber*	250-355	10	1.38	-2.01	102	20120416
VM24-109	180	*G. ruber*	250-355	10	1.25	-1.95	97	20120416
VM24-109	190	*G. ruber*	250-355	10	1.10	-2.10	93	20120416
VM24-109	190	*G. ruber*	250-355	10	1.16	-1.86	90	20120416
VM24-109	200	*G. ruber*	250-355	10	1.18	-1.71	109	20120416
VM24-109	200	*G. ruber*	250-355	10	1.40	-1.64	112	20120416
VM24-109	210	*G. ruber*	250-355	10	0.88	-1.36	124	20120416
VM24-109	210	*G. ruber*	250-355	10	1.12	-1.79	125	20120416
VM24-109	220	*G. ruber*	250-355	10	0.66	-1.19	98	20120416
VM24-109	220	*G. ruber*	250-355	10	0.82	-1.36	118	20120416
VM24-109	230	*G. ruber*	250-355	10	0.93	-1.41	98	20120416
VM24-109	230	*G. ruber*	250-355	10	0.97	-1.12	120	20120416
VM24-109	240	*G. ruber*	250-355	10	0.84	-1.14	109	20120416
VM24-109	240	*G. ruber*	250-355	10	1.03	-1.13	112	20120416
VM24-109	250	*G. ruber*	250-355	10	1.10	-1.41	123	20120416
VM24-109	250	*G. ruber*	250-355	10	0.90	-1.47	112	20120416

RC10-141	40	*G. tumida*	425-500	1	1.92	0.16	20061023
RC10-141	44	*G. tumida*	425-500	1	2.00	-0.70	20061023
RC10-141	48	*G. tumida*	425-500	1	2.19	-0.03	20061023
RC10-141	52	*G. tumida*	425-500	1	2.22	-0.20	20061023
RC10-141	56	*G. tumida*	425-500	1	2.05	0.27	20061023
RC10-141	60	*G. tumida*	425-500	1	2.07	-0.31	20061023
RC10-141	64	*G. tumida*	425-500	1	1.96	-0.22	20061023
RC10-141	68	*G. tumida*	425-500	1	2.08	0.44	20061023
RC10-141	72	*G. tumida*	425-500	1	2.06	-0.19	20061023
RC10-141	76	*G. tumida*	425-500	1	2.26	0.10	20061023
RC10-141	80	*G. tumida*	425-500	1	2.10	0.60	20061023
RC10-141	84	*G. tumida*	425-500	1	1.87	-0.66	20061023
RC10-141	88	*G. tumida*	425-500	1	2.10	-0.41	20061023
RC10-141	92	*G. tumida*	425-500	1	2.35	-0.23	20061023
RC10-141	96	*G. tumida*	425-500	1	1.88	0.59	20061023
RC10-141	4	*G. tumida*	425-500	1	2.20	-1.31	20061023

RC10-141	8	*G. tumida*	425-500	1	2.23	-1.59	20061023
RC10-141	12	*G. tumida*	425-500	1	1.71	0.92	20061023
RC10-141	16	*G. tumida*	425-500	1	2.24	1.16	20061023
RC10-141	20	*G. tumida*	425-500	1	1.70	-0.37	20061023
RC10-141	24	*G. tumida*	425-500	1	1.93	0.65	20061023
RC10-141	28	*G. tumida*	425-500	1	2.43	-0.04	20061023
RC10-141	32	*G. tumida*	425-500	1	1.87	0.63	20061023
RC10-141	36	*G. tumida*	425-500	1	2.07	-1.07	20061023
RC10-141	40	*G. tumida*	425-500	1	1.77	0.78	20061023
RC10-141	44	*G. tumida*	425-500	1	2.01	0.40	20061023
RC10-141	48	*G. tumida*	425-500	1	2.58	-0.53	20061023
RC10-141	52	*G. tumida*	425-500	1	1.86	0.88	20061023
RC10-141	56	*G. tumida*	425-500	1	1.99	0.86	20061023
RC10-141	60	*G. tumida*	425-500	1	1.86	-0.54	20061023
RC10-141	64	*G. tumida*	425-500	1	1.77	0.38	20061023
RC10-141	68	*G. tumida*	425-500	1	1.90	-0.18	20061023

RC10-141	72	*G. tumida*	425-500	1	1.80	0.47	20061023
RC10-141	76	*G. tumida*	425-500	1	1.84	-0.11	20061221
RC10-141	80	*G. tumida*	425-500	1	2.13	-0.31	20061221
RC10-141	84	*G. tumida*	425-500	1	2.09	0.52	20061221
RC10-141	88	*G. tumida*	425-500	1	2.03	-0.36	20061221
RC10-141	92	*G. tumida*	425-500	1	1.71	-0.11	20061221
RC10-141	96	*G. tumida*	425-500	1	2.09	-0.66	20061221
RC10-141	4	*G. tumida*	425-500	1	1.81	-0.88	20061012
RC10-141	8	*G. tumida*	425-500	1	1.79	-1.07	20061012
RC10-141	12	*G. tumida*	425-500	1	1.96	0.05	20061012
RC10-141	16	*G. tumida*	425-500	1	1.85	-0.53	20061012
RC10-141	20	*G. tumida*	425-500	1	1.56	-0.37	20061012
RC10-141	24	*G. tumida*	425-500	1	1.48	-0.56	20061012
RC10-141	28	*G. tumida*	425-500	1	1.84	0.35	20061012
RC10-141	32	*G. tumida*	425-500	1	1.89	0.51	20061012
RC10-141	36	*G. tumida*	425-500	1	1.97	0.42	20061012

RC10-141	40	*G. tumida*	425-500	1	2.02	0.01		20061012
RC10-141	44	*G. tumida*	425-500	1	2.13	0.59		20061012
RC10-141	48	*G. tumida*	425-500	1	2.19	-0.25		20061012
RC10-141	52	*G. tumida*	425-500	1	2.03	0.87		20061012
RC10-141	56	*G. tumida*	425-500	1	2.00	-0.05		20061012
RC10-141	60	*G. tumida*	425-500	1	2.09	-0.18		20061012
RC10-141	64	*G. tumida*	425-500	1	2.00	-0.11		20061012
RC10-141	68	*G. tumida*	425-500	1	1.83	0.06		20061012
RC10-141	72	*G. tumida*	425-500	1	2.00	-0.04		20061012
RC10-141	76	*G. tumida*	425-500	1	1.99	-0.11		20061012
RC10-141	80	*G. tumida*	425-500	1	1.97	-0.31		20061012
RC10-141	84	*G. tumida*	425-500	1	2.01	-0.11		20061012
RC10-141	88	*G. tumida*	425-500	1	1.91	-0.59		20061012
RC10-141	92	*G. tumida*	425-500	1	1.87	-0.09		20061012
RC10-141	96	*G. tumida*	425-500	1	1.83	0.20		20061012
RC10-141	4	*G. tumida*	425-500	1	1.92	-0.91		20061012

RC10-141	8	*G. tumida*	425-500	1	2.04	-1.36		20061012
RC10-141	12	*G. tumida*	425-500	1	1.40	-1.06		20061012
RC10-141	16	*G. tumida*	425-500	1	1.60	1.39		20061012
RC10-141	20	*G. tumida*	425-500	1	1.66	-1.06		20061012
RC10-141	24	*G. tumida*	425-500	1	1.93	-0.57		20061012
RC10-141	28	*G. tumida*	425-500	1	2.16	-0.28		20061012
RC10-141	32	*G. tumida*	425-500	1	2.16	0.45		20061012
RC10-141	36	*G. tumida*	425-500	1	1.96	0.30		20061012
RC10-141	36	*G. tumida*	425-500	1	2.51	0.09	107	20081206
RC10-141	36	*G. tumida*	425-500	1	2.31	0.05	124	20081206
RC10-141	36	*G. tumida*	425-500	1	2.15	0.09	144	20090123
RC10-141	36	*G. tumida*	425-500	1	2.40	-1.14	98	20090123
RC10-141	36	*G. tumida*	425-500	1	1.98	1.08	128	20090123
RC10-141	36	*G. tumida*	425-500	1	1.86	1.05	119	20090123
RC10-141	36	*G. tumida*	425-500	1	1.96	0.90	132	20090123
RC10-141	36	*G. tumida*	425-500	1	2.02	1.16	143	20090123

RC10-141	0	*G. tumida*	425-500	1	2.11	-1.21	151	20090406
RC10-141	0	*G. tumida*	425-500	1	1.86	-0.67	110	20090406
RC10-141	0	*G. tumida*	425-500	1	1.83	-1.17	140	20090406
RC10-141	0	*G. tumida*	425-500	1	1.76	-1.01	142	20090406
RC10-141	0	*G. tumida*	425-500	1	2.07	-0.82	139	20090406
RC10-141	0	*G. tumida*	425-500	1	1.93	-1.20	113	20090406
RC10-141	0	*G. tumida*	425-500	1	1.86	-0.99	119	20090406
RC10-141	0	*G. tumida*	425-500	1	1.56	-0.94	113	20090406
RC10-141	16	*G. ruber*	250-355	10	1.59	-2.03		20070916
RC10-141	20	*G. ruber*	250-355	10	1.20	-2.31		20070916
RC10-141	24	*G. ruber*	250-355	10	1.43	-2.08		20070916
RC10-141	28	*G. ruber*	250-355	10	1.39	-1.49		20070916
RC10-141	32	*G. ruber*	250-355	10	1.47	-1.40		20070916
RC10-141	36	*G. ruber*	250-355	10	1.29	-1.32		20070916
RC10-141	40	*G. ruber*	250-355	10	1.60	-1.41		20070916
RC10-141	44	*G. ruber*	250-355	10	1.33	-1.51		20070916

RC10-141	48	*G. ruber*	250-355	10	1.18	-1.50			20070916
RC10-141	52	*G. ruber*	250-355	10	0.98	-1.39			20070916
RC10-141	56	*G. ruber*	250-355	10	1.45	-1.54			20071010
RC10-141	60	*G. ruber*	250-355	10	1.28	-1.41			20071010
RC10-141	100	*G. ruber*	250-355	10	1.23	-1.72	122		20110610
RC10-141	100	*G. ruber*	250-355	10	1.02	-1.77	122		20110610
RC10-141	104	*G. ruber*	250-355	10	1.16	-1.77	136		20110610
RC10-141	104	*G. ruber*	250-355	10	1.30	-1.77	134		20110610
RC10-141	108	*G. ruber*	250-355	10	1.31	-1.47	114		20110610
RC10-141	108	*G. ruber*	250-355	10	1.18	-1.67	131		20110610
RC10-141	112	*G. ruber*	250-355	10	1.11	-1.61	125		20110610
RC10-141	112	*G. ruber*	250-355	10	1.04	-1.58	121		20110610
RC10-141	116	*G. ruber*	250-355	10	1.20	-1.62	120		20110610
RC10-141	116	*G. ruber*	250-355	10	1.26	-1.66	119		20110610
RC10-141	120	*G. ruber*	250-355	10	1.23	-1.39	97		20110610
RC10-141	120	*G. ruber*	250-355	10	0.93	-1.76	90		20110610

RC10-141	124	*G. ruber*	250-355	10	1.53	-1.89	115	20110610
RC10-141	124	*G. ruber*	250-355	10	1.26	-1.57	107	20110610
RC10-141	128	*G. ruber*	250-355	10	1.40	-1.79	100	20110610
RC10-141	128	*G. ruber*	250-355	10	1.60	-1.77	110	20110610
RC10-141	132	*G. ruber*	250-355	10	1.27	-1.89	104	20110610
RC10-141	132	*G. ruber*	250-355	10	1.24	-1.86	112	20110610
RC10-141	136	*G. ruber*	250-355	10	1.46	-2.03	111	20110610
RC10-141	136	*G. ruber*	250-355	10	1.61	-1.91	101	20110610
RC10-141	140	*G. ruber*	250-355	10	1.68	-2.03	116	20110610
RC10-141	140	*G. ruber*	250-355	10	1.76	-2.01	105	20110610
RC10-141	144	*G. ruber*	250-355	10	1.57	-1.90	101	20110610
RC10-141	144	*G. ruber*	250-355	10	1.50	-2.05	109	20110610
RC10-141	148	*G. ruber*	250-355	10	1.24	-1.84	95	20110610
RC10-141	148	*G. ruber*	250-355	10	1.47	-1.71	123	20110610
RC10-141	152	*G. ruber*	250-355	10	1.34	-2.05	114	20110610
RC10-141	152	*G. ruber*	250-355	10	1.53	-1.97	113	20110610

RC10-141	156	*G. ruber*	250-355	10	1.62	-1.96	120		20110610
RC10-141	156	*G. ruber*	250-355	10	1.67	-1.93	127		20110610
RC10-141	160	*G. ruber*	250-355	10	1.62	-1.91	115		20110610
RC10-141	160	*G. ruber*	250-355	10	1.62	-2.10	104		20110610
RC10-141	164	*G. ruber*	250-355	10	1.57	-1.92	125		20110610
RC10-141	164	*G. ruber*	250-355	10	1.55	-2.04	111		20110610
RC10-141	168	*G. ruber*	250-355	10	1.35	-1.93	113		20110610
RC10-141	168	*G. ruber*	250-355	10	1.42	-1.95	99		20110610
RC10-141	172	*G. ruber*	250-355	10	1.39	-1.98	119		20110610
RC10-141	172	*G. ruber*	250-355	10	1.43	-1.96	110		20110610
VM24-150	52	*G. tumida*	425-500	1	1.92	-0.17			20061222
VM24-150	56	*G. tumida*	425-500	1	2.26	-0.25			20061222
VM24-150	60	*G. tumida*	425-500	1	2.08	0.12			20061222
VM24-150	4	*G. tumida*	425-500	1	1.94	-0.92		LH	20061222
VM24-150	8	*G. tumida*	425-500	1	1.97	-0.18			20061222
VM24-150	12	*G. tumida*	425-500	1	1.91	-1.11			20061222

VM24-150	16	*G. tumida*	425-500	1	1.95	-0.79		20061222
VM24-150	20	*G. tumida*	425-500	1	2.04	-1.36		20061222
VM24-150	24	*G. tumida*	425-500	1	1.99	-0.30		20061222
VM24-150	28	*G. tumida*	425-500	1	2.06	-0.51		20061222
VM24-150	32	*G. tumida*	425-500	1	1.59	1.21		20061222
VM24-150	36	*G. tumida*	425-500	1	2.13	1.14	LGM	20061222
VM24-150	40	*G. tumida*	425-500	1	2.01	-0.13	LGM	20061222
VM24-150	44	*G. tumida*	425-500	1	2.07	-0.03		20061222
VM24-150	48	*G. tumida*	425-500	1	2.19	0.28		20061222
VM24-150	62	*G. tumida*	425-500	1	1.95	-0.13		20061222
VM24-150	56	*G. tumida*	425-500	1	2.15	0.04		20061222
VM24-150	60	*G. tumida*	425-500	1	1.98	0.09		20061222
VM24-150	4	*G. tumida*	425-500	1	1.78	-1.38	LH	20061221
VM24-150	8	*G. tumida*	425-500	1	1.97	-1.11		20061221
VM24-150	12	*G. tumida*	425-500	1	1.75	-1.69		20061221
VM24-150	16	*G. tumida*	425-500	1	1.68	0.30		20061221

VM24-150	20	*G. tumida*	425-500	1	1.51	-0.57		20061221
VM24-150	24	*G. tumida*	425-500	1	1.67	-0.89		20061221
VM24-150	28	*G. tumida*	425-500	1	2.08	-1.04		20061221
VM24-150	32	*G. tumida*	425-500	1	1.69	0.05		20061221
VM24-150	36	*G. tumida*	425-500	1	2.19	-0.36	LGM	20061221
VM24-150	40	*G. tumida*	425-500	1	2.15	0.30	LGM	20061221
VM24-150	44	*G. tumida*	425-500	1	1.82	0.14		20061221
VM24-150	48	*G. tumida*	425-500	1	2.06	0.33		20061221
VM24-150	52	*G. tumida*	425-500	1	2.20	0.04		20061221
VM24-150	56	*G. tumida*	425-500	1	2.21	-0.06		20061221
VM24-150	60	*G. tumida*	425-500	1	1.88	1.09		20061221
VM24-150	4	*G. tumida*	425-500	1	1.78	-1.20	LH	20061221
VM24-150	8	*G. tumida*	425-500	1	2.02	-1.26		20061221
VM24-150	12	*G. tumida*	425-500	1	1.94	-0.84		20061221
VM24-150	16	*G. tumida*	425-500	1	1.92	-1.31		20061221
VM24-150	20	*G. tumida*	425-500	1	1.73	-0.56		20061221

VM24-150	24	*G. tumida*	425-500	1	1.73	-0.79			20061221
VM24-150	28	*G. tumida*	425-500	1	1.97	0.22			20061221
VM24-150	32	*G. tumida*	425-500	1	2.28	-0.27			20061221
VM24-150	36	*G. tumida*	425-500	1	2.05	1.60		LGM	20061221
VM24-150	40	*G. tumida*	425-500	1	1.79	0.00		LGM	20061221
VM24-150	44	*G. tumida*	425-500	1	1.86	0.08			20061221
VM24-150	48	*G. tumida*	425-500	1	2.21	0.44			20061221
VM24-150	36	*G. tumida*	425-500	1	2.20	-0.10	140	LGM	20090123
VM24-150	36	*G. tumida*	425-500	1	2.11	-0.03	127	LGM	20090123
VM24-150	38	*G. tumida*	425-500	1	2.06	0.57	114	LGM	20090123
VM24-150	38	*G. tumida*	425-500	1	2.50	-0.15	139	LGM	20090123
VM24-150	38	*G. tumida*	425-500	1	1.98	0.86	117	LGM	20090123
VM24-150	38	*G. tumida*	425-500	1	2.04	0.52	138	LGM	20090123
VM24-150	0	*G. tumida*	425-500	1	2.11	-0.83	145	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	2.32	-1.18	159	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	2.16	-1.20	127	LH	20090329

VM24-150	0	*G. tumida*	425-500	1	1.86	-1.15	134	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	2.14	-1.26	157	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	2.00	-0.60	121	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	1.78	-1.05	147	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	1.88	-1.20	175	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	1.91	-0.19	154	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	1.88	-1.65	100	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	1.88	-1.62	109	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	1.94	0.04	152	LH	20090329
VM24-150	0	*G. tumida*	425-500	1	1.92	-1.35	149	LH	20090329
VM24-150	16	*G. tumida*	425-500	1	1.06	0.85	94		20091009
VM24-150	40	*G. tumida*	425-500	1	2.25	-0.04	150	LGM	20100913
VM24-150	40	*G. tumida*	425-500	1	1.98	-0.12	172	LGM	20100913
VM24-150	40	*G. tumida*	425-500	1	2.14	0.03	138	LGM	20100913
VM24-150	40	*G. tumida*	425-500	1	2.39	0.17	112	LGM	20100913
VM24-150	40	*G. tumida*	425-500	1	2.10	-0.07	145	LGM	20100913

VM24-150	40	*G. tumida*	425-500	1	2.32	0.12	119	LGM	20100913
VM24-150	48	*G. tumida*	425-500	1	2.32	0.17	130		20100913
VM24-150	48	*G. tumida*	425-500	1	2.08	0.17	114		20100913
VM24-150	48	*G. tumida*	425-500	1	2.34	0.37	113		20100913
VM24-150	48	*G. tumida*	425-500	1	2.33	0.03	134		20100913
VM24-150	48	*G. tumida*	425-500	1	2.14	0.21	120		20100913
VM24-150	48	*G. tumida*	425-500	1	1.96	-0.20	149		20100913
VM24-150	48	*G. tumida*	425-500	1	2.28	-0.01	113		20100913
VM24-150	48	*G. tumida*	425-500	1	2.14	0.36	110		20100913
VM24-150	48	*G. tumida*	425-500	1	1.94	0.44	96		20100913
VM24-150	48	*G. tumida*	425-500	1	2.14	-0.27	101		20100913
VM24-150	44	*G. tumida*	425-500	Powder	1.84	0.34	110	LGM	20100913
VM24-150	44	*G. tumida*	425-500	Powder	2.07	0.18	109	LGM	20100913
VM24-150	44	*G. tumida*	425-500	Powder	1.88	0.12	125	LGM	20100913
VM24-150	44	*G. tumida*	425-500	Powder	1.89	-0.01	136	LGM	20100913
VM24-150	4	*G. tumida*	355-425	1	1.87	-0.62	99	LH	20110826

VM24-150	16	*G. tumida*	425-500	1	1.53	-0.79	154	20110826
VM24-150	16	*G. tumida*	425-500	1	1.91	0.13	166	20110826
VM24-150	16	*G. tumida*	425-500	1	1.63	-0.91	129	20110826
VM24-150	16	*G. tumida*	355-425	1	1.62	-1.10	71	20110826
VM24-150	16	*G. tumida*	355-425	1	1.78	-0.67	90	20110826
VM24-150	16	*G. tumida*	>500	1	1.60	-1.06	215	20110826
VM24-150	32	*G. tumida*	425-500	1	1.81	0.74	131	20110826
VM24-150	32	*G. tumida*	425-500	1	2.24	-0.24	101	20110826
VM24-150	32	*G. tumida*	425-500	1	1.85	0.15	103	20110826
VM24-150	32	*G. tumida*	425-500	1	1.93	-0.04	97	20110826
VM24-150	32	*G. tumida*	425-500	1	1.74	0.10	101	20110826
VM24-150	32	*G. tumida*	425-500	1	1.75	-0.16	94	20110826
VM24-150	32	*G. tumida*	425-500	1	2.10	-0.35	94	20110826
VM24-150	32	*G. tumida*	425-500	1	2.33	-0.24	106	20110826
VM24-150	32	*G. tumida*	425-500	1	2.45	-0.36	94	20110826
VM24-150	32	*G. tumida*	425-500	1	1.81	0.75	64	20110826

VM24-150	36	*G. tumida*	425-500	1	1.82	-0.11	125	LGM	20110829
VM24-150	36	*G. tumida*	425-500	1	2.01	0.15	152	LGM	20110829
VM24-150	36	*G. tumida*	425-500	1	1.86	0.93	134	LGM	20110829
VM24-150	36	*G. tumida*	425-500	1	1.50	0.35	152	LGM	20110829
VM24-150	36	*G. tumida*	425-500	1	2.14	-0.25	97	LGM	20110829
VM24-150	36	*G. tumida*	425-500	1	1.79	-1.23	96	LGM	20110829
VM24-150	36	*G. tumida*	425-500	1	1.76	-0.03	127	LGM	20110829
VM24-150	36	*G. tumida*	355-425	1	2.06	0.34	82	LGM	20110829
VM24-150	36	*G. tumida*	355-425	1	2.25	0.66	104	LGM	20110829
VM24-150	36	*G. tumida*	355-425	1	2.27	-0.25	95	LGM	20110829
VM24-150	40	*G. tumida*	425-500	1	1.96	-0.13	126	LGM	20110829
VM24-150	40	*G. tumida*	425-500	1	2.01	0.78	102	LGM	20110829
VM24-150	40	*G. tumida*	425-500	1	1.86	0.16	132	LGM	20110829
VM24-150	40	*G. tumida*	425-500	1	1.84	0.46	107	LGM	20110829
VM24-150	40	*G. tumida*	425-500	1	2.42	-0.12	131	LGM	20110829
VM24-150	40	*G. tumida*	425-500	1	2.30	-0.28	155	LGM	20110829

VM24-150	40	*G. tumida*	425-500	1	1.92	1.61	148	LGM	20110829
VM24-150	44	*G. tumida*	425-500	1	2.00	-0.03	141		20110829
VM24-150	44	*G. tumida*	425-500	1	2.08	-0.07	134		20110829
VM24-150	44	*G. tumida*	425-500	1	2.38	0.20	124		20110829
VM24-150	44	*G. tumida*	425-500	1	1.71	-0.04	158		20110829
VM24-150	44	*G. tumida*	425-500	1	1.98	-0.21	124		20110829
VM24-150	44	*G. tumida*	425-500	1	1.95	0.89	157		20110830
VM24-150	44	*G. tumida*	425-500	1	2.06	-0.03	139		20110830
VM24-150	44	*G. tumida*	425-500	1	2.48	0.07	137		20110830
VM24-150	44	*G. tumida*	425-500	1	1.87	-0.17	103		20110830
VM24-150	48	*G. tumida*	425-500	1	1.64	1.07	151		20110830
VM24-150	48	*G. tumida*	425-500	1	1.87	-0.15	159		20110830
VM24-150	48	*G. tumida*	425-500	1	1.82	-0.05	153		20110830
VM24-150	48	*G. tumida*	425-500	1	2.03	0.08	110		20110830
VM24-150	48	*G. tumida*	425-500	1	1.90	0.33	125		20110830
VM24-150	48	*G. tumida*	425-500	1	1.95	0.17	110		20110830

VM24-150	48	*G. tumida*	425-500	1	1.73	0.43	150		20110830
VM24-150	48	*G. tumida*	425-500	1	2.10	-0.07	131		20110830
VM24-150	48	*G. tumida*	425-500	1	1.86	-0.47	125		20110830
VM24-150	48	*G. tumida*	425-500	1	2.10	0.54	122		20110830
VM24-150	0	*G. ruber*	250-355	10	1.47	-2.55	140	LH	20091117
VM24-150	64	*G. ruber*	250-355	10	1.44	-1.54	127		20110425
VM24-150	64	*G. ruber*	250-355	10	1.35	-1.40	123		20110425
VM24-150	68	*G. ruber*	250-355	10	1.27	-1.48	119		20110425
VM24-150	68	*G. ruber*	250-355	10	1.09	-1.33	108		20110425
VM24-150	72	*G. ruber*	250-355	10	1.43	-1.63	136		20110425
VM24-150	72	*G. ruber*	250-355	10	1.44	-1.48	122		20110425
VM24-150	76	*G. ruber*	250-355	10	1.50	-1.61	130		20110425
VM24-150	76	*G. ruber*	250-355	10	1.14	-1.69	136		20110425
VM24-150	80	*G. ruber*	250-355	10	1.31	-1.56	122		20110425
VM24-150	80	*G. ruber*	250-355	10	1.41	-1.43	117		20110425
VM24-150	84	*G. ruber*	250-355	10	1.44	-1.46	131		20110425

VM24-150	84	*G. ruber*	250-355	10	1.30	-1.44	107	20110425
VM24-150	88	*G. ruber*	250-355	10	1.54	-1.77	130	20110425
VM24-150	88	*G. ruber*	250-355	10	1.49	-1.62	115	20110425
VM24-150	92	*G. ruber*	250-355	10	1.33	-1.62	122	20110425
VM24-150	92	*G. ruber*	250-355	10	1.36	-1.76	135	20110425
VM24-150	96	*G. ruber*	250-355	10	1.31	-1.74	148	20110425
VM24-150	96	*G. ruber*	250-355	10	1.33	-1.63	136	20110425
VM24-150	100	*G. ruber*	250-355	10	0.90	-1.60	119	20110425
VM24-150	100	*G. ruber*	250-355	10	1.22	-1.58	119	20110425
VM24-150	104	*G. ruber*	250-355	10	1.15	-1.92	131	20110425
VM24-150	104	*G. ruber*	250-355	10	1.47	-1.65	137	20110425
VM24-150	108	*G. ruber*	250-355	10	0.92	-1.57	115	20110425
VM24-150	108	*G. ruber*	250-355	10	1.18	-1.75	123	20110425
VM24-150	112	*G. ruber*	250-355	10	1.41	-1.76	132	20110511
VM24-150	112	*G. ruber*	250-355	10	1.27	-1.65	115	20110511
VM24-150	116	*G. ruber*	250-355	10	1.21	-1.45	109	20110511

VM24-150	116	*G. ruber*	250-355	10	1.14	-1.39	111	20110511
VM24-150	120	*G. ruber*	250-355	10	1.06	-1.47	110	20110511
VM24-150	120	*G. ruber*	250-355	10	1.30	-1.59	118	20110511
VM24-150	124	*G. ruber*	250-355	10	1.34	-1.79	119	20110511
VM24-150	128	*G. ruber*	250-355	10	1.10	-1.60	98	20110511
VM24-150	128	*G. ruber*	250-355	10	1.42	-1.58	112	20110511
VM24-150	132	*G. ruber*	250-355	10	1.41	-1.73	115	20110511
VM24-150	132	*G. ruber*	250-355	10	1.50	-1.86	114	20110511
VM24-150	136	*G. ruber*	250-355	10	1.37	-1.95	111	20110511
VM24-150	136	*G. ruber*	250-355	10	1.56	-1.94	108	20110511
VM24-150	140	*G. ruber*	250-355	10	1.50	-2.15	117	20110511
VM24-150	140	*G. ruber*	250-355	10	1.70	-2.04	134	20110511
VM24-150	144	*G. ruber*	250-355	10	1.85	-1.97	143	20110511
VM24-150	144	*G. ruber*	250-355	10	1.76	-1.91	115	20110511
VM24-150	148	*G. ruber*	250-355	10	1.72	-2.13	110	20110511
VM24-150	148	*G. ruber*	250-355	10	1.44	-1.95	111	20110511

VM24-150	152	*G. ruber*	250-355	10	1.51	-1.98	114	20110511
VM24-150	152	*G. ruber*	250-355	10	1.44	-2.16	117	20110511
VM24-150	156	*G. ruber*	250-355	10	1.35	-2.02	112	20110511
VM24-150	156	*G. ruber*	250-355	10	1.64	-2.03	121	20110511
VM24-150	160	*G. ruber*	250-355	10	1.58	-2.04	131	20110512
VM24-150	160	*G. ruber*	250-355	10	1.77	-1.85	114	20110512
VM24-150	164	*G. ruber*	250-355	10	1.78	-2.22	125	20110512
VM24-150	164	*G. ruber*	250-355	10	1.57	-1.99	113	20110512
VM24-150	168	*G. ruber*	250-355	10	1.53	-1.95	108	20110512
VM24-150	168	*G. ruber*	250-355	10	1.51	-1.92	116	20110512
VM24-150	172	*G. ruber*	250-355	10	1.66	-2.02	114	20110512
VM24-150	172	*G. ruber*	250-355	10	1.47	-2.05	110	20110512
VM24-150	176	*G. ruber*	250-355	10	1.53	-2.11	118	20110512
VM24-150	176	*G. ruber*	250-355	10	1.43	-2.06	125	20110512
VM24-150	180	*G. ruber*	250-355	10	1.45	-1.98	124	20110512
VM24-150	180	*G. ruber*	250-355	10	1.30	-2.07	103	20110512

VM24-150	184	*G. ruber*	250-355	10	1.46	-2.04	128		20110512
VM24-150	184	*G. ruber*	250-355	10	1.41	-2.16	116		20110512
VM24-150	188	*G. ruber*	250-355	10	1.16	-2.20	122		20110512
VM24-150	188	*G. ruber*	250-355	10	1.22	-2.19	110		20110512
VM24-150	192	*G. ruber*	250-355	10	1.34	-2.31	111		20110512
VM24-150	192	*G. ruber*	250-355	10	1.37	-2.43	117		20110512
VM24-150	196	*G. ruber*	250-355	10	1.16	-2.58	111		20110512
VM24-150	196	*G. ruber*	250-355	10	1.32	-2.47	141		20110512
VM24-150	0	*G. ruber*	250-355	10	1.48	-2.47	138	LH	20110912
VM24-150	0	*G. ruber*	250-355	10	1.60	-2.56	145	LH	20110912
VM24-150	8	*G. ruber*	250-355	10	1.46	-2.35	115		20110912
VM24-150	12	*G. ruber*	250-355	10	1.43	-2.60	102		20110912
VM24-150	12	*G. ruber*	250-355	10	1.45	-2.71	101		20110912
VM24-150	16	*G. ruber*	250-355	10	1.45	-2.50	118		20110912
VM24-150	16	*G. ruber*	250-355	10	1.15	-2.27	103		20110912
VM24-150	20	*G. ruber*	250-355	10	1.06	-2.11	109		20110912

VM24-150	20	*G. ruber*	250-355	10	1.25	-2.32	116		20110912
VM24-150	24	*G. ruber*	250-355	10	1.11	-2.07	107		20110912
VM24-150	24	*G. ruber*	250-355	10	1.06	-1.90	105		20110912
VM24-150	28	*G. ruber*	250-355	10	1.13	-1.83	114		20110912
VM24-150	28	*G. ruber*	250-355	10	1.25	-1.76	126		20110912
VM24-150	32	*G. ruber*	250-355	10	1.18	-1.71	100		20110912
VM24-150	32	*G. ruber*	250-355	10	1.06	-1.72	128		20110912
VM24-150	36	*G. ruber*	250-355	10	1.22	-1.54	118	LGM	20110912
VM24-150	36	*G. ruber*	250-355	10	0.91	-1.65	99	LGM	20110912
VM24-150	40	*G. ruber*	250-355	10	0.93	-1.58	108	LGM	20110912
VM24-150	40	*G. ruber*	250-355	10	1.33	-1.26	115	LGM	20110912
VM24-150	44	*G. ruber*	250-355	10	0.99	-1.45	106		20110912
VM24-150	44	*G. ruber*	250-355	10	1.12	-1.31	115		20110912
VM24-150	48	*G. ruber*	250-355	10	1.05	-1.48	107		20110912
VM24-150	48	*G. ruber*	250-355	10	1.37	-1.40	113		20110912
VM24-150	52	*G. ruber*	250-355	10	1.32	-1.24	106		20110913

VM24-150	52	*G. ruber*	250-355	10	1.20	-1.38	116	20110913
VM24-150	56	*G. ruber*	250-355	10	1.37	-1.42	115	20110913
VM24-150	56	*G. ruber*	250-355	10	1.17	-1.42	114	20110913
VM24-150	60	*G. ruber*	250-355	10	1.24	-1.42	120	20110913
VM24-150	60	*G. ruber*	250-355	10	1.03	-1.42	115	20110913
VM24-150	4	*P. obliquiloculata*	355-425	1	1.03	-1.17	74	20110627
VM24-150	4	*P. obliquiloculata*	355-425	1	0.95	-0.34	48	20110627
VM24-150	4	*P. obliquiloculata*	355-425	1	1.42	-1.61	58	20110627
VM24-150	4	*P. obliquiloculata*	355-425	1	0.71	-1.89	40	20110627
VM24-150	4	*P. obliquiloculata*	355-425	1	1.22	-1.20	51	20110627
VM24-150	4	*P. obliquiloculata*	355-425	1	1.06	-1.36	60	20110628
VM24-150	4	*P. obliquiloculata*	355-425	1	1.29	-1.60	53	20110628
VM24-150	4	*P. obliquiloculata*	355-425	1	1.06	-1.41	50	20110628
VM24-150	4	*P. obliquiloculata*	355-425	1	1.31	-1.77	47	20110628
VM24-150	28	*P. obliquiloculata*	355-425	1	0.81	-0.55	36	20111122
VM24-150	28	*P. obliquiloculata*	355-425	1	1.26	-1.87	37	20111122

VM24-150	28	*P. obliquiloculata*	355-425	1	-0.22	-0.01	42	20111122
VM24-150	36	*P. obliquiloculata*	355-425	1	1.02	-0.03	47	20111122
VM24-150	36	*P. obliquiloculata*	355-425	1	1.16	-0.22	47	20111122
VM24-150	36	*P. obliquiloculata*	355-425	1	0.99	-0.35	35	20111122
VM24-150	36	*P. obliquiloculata*	355-425	1	0.56	-0.97	40	20111122
VM24-150	36	*P. obliquiloculata*	355-425	1	0.78	0.07	45	20111122
VM24-150	36	*P. obliquiloculata*	355-425	1	1.24	-0.52	38	20111214
VM24-150	36	*P. obliquiloculata*	355-425	1	1.17	0.03	37	20111214
VM24-150	40	*P. obliquiloculata*	355-425	1	1.04	0.38	32	20111214
VM24-150	40	*P. obliquiloculata*	355-425	1	1.11	0.13	29	20111214
VM24-150	40	*P. obliquiloculata*	355-425	1	1.56	-1.04	45	20111214
VM24-150	8	*C. wuellerstorfi*	>250	1	0.21	2.34	41	20120518
VM24-150	8	*C. wuellerstorfi*	>250	1	0.44	2.32	39	20120518
VM24-150	20	*C. wuellerstorfi*	>250	1	0.35	2.38	38	20120518
VM24-150	32	*C. wuellerstorfi*	>250	1	-0.01	3.89	34	20120518
VM24-150	32	*C. wuellerstorfi*	>250	1	0.13	3.78	27	20120518

VM24-150	20	*C. wuellerstorfi*	>250	1	0.08	3.28	73	20120523
VM24-150	20	*C. wuellerstorfi*	>250	1	0.31	2.74	64	20120523
VM24-150	28	*C. wuellerstorfi*	>250	1	0.47	2.31	102	20120523
VM24-150	28	*C. wuellerstorfi*	>250	1	0.12	3.26	62	20120523
VM24-150	36	*C. wuellerstorfi*	>250	1	0.06	3.40	53	20120523
VM24-150	44	*C. wuellerstorfi*	>250	1	0.00	3.68	69	20120523
VM24-150	44	*C. wuellerstorfi*	>250	1	0.20	3.37	53	20120523
VM24-150	48	*C. wuellerstorfi*	>250	1	-0.01	3.82	55	20120523
VM24-150	48	*C. wuellerstorfi*	>250	1	-0.10	3.78	86	20120523
VM24-150	48	*C. wuellerstorfi*	>250	1	0.26	3.44	103	20120523
VM24-150	52	*C. wuellerstorfi*	>250	1	0.13	3.64	74	20120523
VM24-150	52	*C. wuellerstorfi*	>250	1	0.11	3.81	77	20120523
VM24-150	8	*C. wuellerstorfi*	>250	0.5	-0.19	3.84	85	20120523
VM24-150	68	*C. wuellerstorfi*	>250	1	0.14	3.33	66	20120524
VM24-150	68	*C. wuellerstorfi*	>250	1	0.19	3.31	93	20120524
VM24-150	68	*C. wuellerstorfi*	>250	1	0.25	3.48	67	20120524

VM24-150	72	*C. wuellerstorfi*	>250	1	0.15	3.40	83	20120524
VM24-150	76	*C. wuellerstorfi*	>250	1	0.14	3.36	59	20120524
VM24-150	80	*C. wuellerstorfi*	>250	1	0.13	3.45	59	20120524
VM24-150	84	*C. wuellerstorfi*	>250	1	0.15	3.14	51	20120524
VM24-150	84	*C. wuellerstorfi*	>250	1	0.30	3.55	138	20120524
VM24-150	88	*C. wuellerstorfi*	>250	1	0.22	3.44	71	20120524
VM24-150	88	*C. wuellerstorfi*	>250	1	0.26	3.16	69	20120524
VM24-150	96	*C. wuellerstorfi*	>250	1	0.17	3.03	56	20120524
VM24-150	96	*C. wuellerstorfi*	>250	1	0.22	3.54	77	20120524
VM24-150	100	*C. wuellerstorfi*	>250	1	0.12	3.17	130	20120524
VM24-150	100	*C. wuellerstorfi*	>250	1	0.26	3.32	62	20120524
VM24-150	100	*C. wuellerstorfi*	>250	1	0.11	3.10	54	20120524
VM24-150	104	*C. wuellerstorfi*	>250	1	0.07	3.17	99	20120524
VM24-150	104	*C. wuellerstorfi*	>250	1	0.19	3.38	50	20120524
VM24-150	104	*C. wuellerstorfi*	>250	1	0.16	3.09	129	20120524
VM24-150	124	*C. wuellerstorfi*	>250	1	-0.09	3.65	145	20120524

VM24-150	124	*C. wuellerstorfi*	>250	1	0.15	3.73	109		20120524
VM24-150	124	*C. wuellerstorfi*	>250	1	-0.03	3.43	53		20120524
VM24-150	112	*C. wuellerstorfi*	>250	1	0.06	3.33	53		20120524
VM24-150	112	*C. wuellerstorfi*	>250	1	0.03	3.28	51		20120524
VM24-150	128	*C. wuellerstorfi*	>250	1	-0.07	3.32	166		20120524
VM24-150	128	*C. wuellerstorfi*	>250	1	0.18	3.44	53		20120524
VM24-150	132	*C. wuellerstorfi*	>250	1	0.18	2.75	122		20120524
VM24-150	64	*C. wuellerstorfi*	>250	1	-0.03	3.42	40		20120529
VM24-150	72	*C. wuellerstorfi*	>250	1	0.15	3.72	35		20120529
VM24-150	72	*C. wuellerstorfi*	>250	1	0.10	3.38	44		20120529
VM24-150	76	*C. wuellerstorfi*	>250	1	0.23	3.52	21		20120529
VM24-150	80	*C. wuellerstorfi*	>250	1	0.21	3.60	26		20120529
VM24-150	88	*C. wuellerstorfi*	>250	1	0.17	3.53	46		20120529
VM24-150	92	*C. wuellerstorfi*	>250	1	0.11	3.35	21		20120529
VM24-150	128	*C. wuellerstorfi*	>250	1	0.11	3.54	46		20120529
VM28-236TW	0	*G. tumida*	425-500	1	1.74	-0.57	126	LH	20090406

VM28-236TW	0	*G. tumida*	425-500	1	2.17	-1.38	157	LH	20090408
VM28-236TW	0	*G. tumida*	425-500	1	1.99	-0.25	151	LH	20090408
VM28-236TW	0	*G. tumida*	425-500	1	1.87	-1.39	118	LH	20090408
VM28-236TW	0	*G. tumida*	425-500	1	1.80	-1.43	130	LH	20090408
VM28-236TW	0	*G. tumida*	425-500	1	2.06	-0.79	150	LH	20090408
VM28-236TW	0	*G. tumida*	425-500	1	2.21	-1.32	110	LH	20090408
VM28-236TW	0	*G. tumida*	425-500	1	2.24	0.00	112	LH	20100409
VM28-236TW	0	*G. tumida*	425-500	1	1.56	-0.85	146	LH	20100409
VM28-236TW	0	*G. tumida*	425-500	1	1.90	-0.89	160	LH	20100409
VM28-236TW	0	*G. tumida*	425-500	1	1.91	-1.37	121	LH	20100409
VM28-236TW	2	*G. ruber*	250-355	10	1.42	-2.14	130	LH	20100409
VM28-236TW	0	*G. ruber*	250-355	10	1.40	-1.95	145	LH	20100409
VM28-236	52	*G. tumida*	425-500	1	2.07	-0.25			20071016
VM28-236	56	*G. tumida*	425-500	1	1.70	-0.13			20071016
VM28-236	56	*G. tumida*	425-500	1	1.80	-0.09			20071016
VM28-236	56	*G. tumida*	425-500	1	1.73	-0.09			20071016

VM28-236	60	*G. tumida*	425-500	1	2.09	-0.34			20071016
VM28-236	60	*G. tumida*	425-500	1	2.02	-0.70			20071016
VM28-236	60	*G. tumida*	425-500	1	1.98	0.00			20071016
VM28-236	4	*G. tumida*	425-500	1	2.07	-0.96	167		20071010
VM28-236	4	*G. tumida*	425-500	1	1.85	-1.06	157		20071010
VM28-236	4	*G. tumida*	425-500	1	1.84	-0.81	110		20071010
VM28-236	8	*G. tumida*	425-500	1	2.08	-1.09	149		20071010
VM28-236	8	*G. tumida*	425-500	1	1.54	-0.38	135		20071010
VM28-236	8	*G. tumida*	425-500	1	2.15	-0.89	182		20071010
VM28-236	12	*G. tumida*	425-500	1	1.64	-0.83	148		20071010
VM28-236	12	*G. tumida*	425-500	1	2.08	-1.01	145		20071010
VM28-236	12	*G. tumida*	425-500	1	2.13	-0.95	144		20071010
VM28-236	16	*G. tumida*	425-500	1	1.88	0.48	125	LGM	20071010
VM28-236	16	*G. tumida*	425-500	1	2.27	-0.18		LGM	20071010
VM28-236	16	*G. tumida*	425-500	1	1.88	0.25		LGM	20071010
VM28-236	20	*G. tumida*	425-500	1	1.91	-0.82		LGM	20071010

VM28-236	20	*G. tumida*	425-500	1	1.59	-1.06	LGM	20071010
VM28-236	20	*G. tumida*	425-500	1	1.86	-1.18	LGM	20071010
VM28-236	24	*G. tumida*	425-500	1	1.87	0.30		20071010
VM28-236	24	*G. tumida*	425-500	1	1.81	-0.15		20071010
VM28-236	24	*G. tumida*	425-500	1	1.98	-0.05		20071011
VM28-236	48	*G. tumida*	425-500	1	2.14	-0.42		20071011
VM28-236	52	*G. tumida*	425-500	1	2.04	-0.43		20071011
VM28-236	52	*G. tumida*	425-500	1	1.94	-0.27		20071011
VM28-236	32	*G. tumida*	425-500	1	2.01	0.47		20071011
VM28-236	32	*G. tumida*	425-500	1	2.14	-0.16		20071011
VM28-236	32	*G. tumida*	425-500	1	1.94	0.02		20071011
VM28-236	36	*G. tumida*	425-500	1	1.91	-0.06		20071011
VM28-236	36	*G. tumida*	425-500	1	2.54	0.20		20071011
VM28-236	36	*G. tumida*	425-500	1	2.00	-0.11		20071011
VM28-236	40	*G. tumida*	425-500	1	1.90	-0.18		20071011
VM28-236	40	*G. tumida*	425-500	1	2.14	-0.35		20071011

VM28-236	40	*G. tumida*	425-500	1	2.17	-0.33			20071011
VM28-236	40	*G. tumida*	425-500	1	2.43	-0.30			20071011
VM28-236	40	*G. tumida*	425-500	1	1.90	0.52			20071011
VM28-236	40	*G. tumida*	425-500	1	2.11	0.26			20071011
VM28-236	48	*G. tumida*	425-500	1	2.13	-0.35			20071011
VM28-236	48	*G. tumida*	425-500	1	1.74	0.26			20071011
VM28-236	32	*G. tumida*	425-500	1	2.10	0.00	121		20090123
VM28-236	32	*G. tumida*	425-500	1	2.50	-0.32	121		20090123
VM28-236	32	*G. tumida*	425-500	1	1.87	-0.28	115		20090123
VM28-236	32	*G. tumida*	425-500	1	2.25	0.98	127		20090123
VM28-236	32	*G. tumida*	425-500	1	2.04	0.24	132		20090123
VM28-236	32	*G. tumida*	425-500	1	2.33	-0.10	118		20090123
VM28-236	32	*G. tumida*	425-500	1	2.28	0.05	105		20090123
VM28-236	32	*G. tumida*	425-500	1	2.27	0.14	126		20090123
VM28-236	20	*G. tumida*	425-500	1	1.93	-0.50	147	LGM	20100909
VM28-236	20	*G. tumida*	425-500	1	2.01	0.13	105	LGM	20100909

VM28-236	20	*G. tumida*	425-500	1	1.68	-0.14	155	LGM	20100909
VM28-236	20	*G. tumida*	425-500	1	2.10	0.53	132	LGM	20100909
VM28-236	20	*G. tumida*	425-500	1	2.13	-0.02	131	LGM	20100909
VM28-236	20	*G. tumida*	425-500	1	2.02	-0.16	125	LGM	20100909
VM28-236	20	*G. tumida*	425-500	1	2.01	-0.20	90	LGM	20100909
VM28-236	20	*G. tumida*	425-500	1	1.72	0.25	140	LGM	20100909
VM28-236	24	*G. tumida*	425-500	1	1.77	-0.01	140		20100909
VM28-236	24	*G. tumida*	425-500	1	2.05	-0.02	158		20100909
VM28-236	24	*G. tumida*	425-500	1	1.93	0.59	131		20100909
VM28-236	24	*G. tumida*	425-500	1	2.21	-0.10	135		20100909
VM28-236	24	*G. tumida*	425-500	1	1.97	0.46	125		20100909
VM28-236	24	*G. tumida*	425-500	1	1.62	-0.13	138		20100909
VM28-236	24	*G. tumida*	425-500	1	1.79	0.11	138		20100909
VM28-236	24	*G. tumida*	425-500	1	1.41	0.39	97		20100909
VM28-236	20	*G. tumida*	425-500	1	1.92	-0.52	147	LGM	20100913
VM28-236	20	*G. tumida*	425-500	1	2.01	0.11	105	LGM	20100913

VM28-236	20	*G. tumida*	425-500	1	1.68	-0.16	155	LGM	20100913
VM28-236	120	*G. tumida*	425-500	1	1.70	-0.69	113	MIS 5e	20111115
VM28-236	120	*G. tumida*	425-500	1	1.35	-0.23	112	MIS 5e	20111115
VM28-236	120	*G. tumida*	425-500	1	1.85	-0.54	93	MIS 5e	20111115
VM28-236	120	*G. tumida*	425-500	1	1.83	-0.91	122	MIS 5e	20111115
VM28-236	120	*G. tumida*	425-500	1	1.48	-1.02	106	MIS 5e	20111115
VM28-236	120	*G. tumida*	425-500	1	1.69	-0.77	135	MIS 5e	20111115
VM28-236	120	*G. tumida*	425-500	1	1.98	-0.16	109	MIS 5e	20111115
VM28-236	124	*G. tumida*	425-500	1	1.51	-0.85	132	MIS 5e	20111116
VM28-236	124	*G. tumida*	425-500	1	1.54	-0.99	111	MIS 5e	20111116
VM28-236	124	*G. tumida*	425-500	1	1.79	-1.16	120	MIS 5e	20111116
VM28-236	124	*G. tumida*	425-500	1	1.84	-0.81	138	MIS 5e	20111116
VM28-236	124	*G. tumida*	425-500	1	1.66	-0.66	125	MIS 5e	20111116
VM28-236	124	*G. tumida*	425-500	1	1.73	0.13	145	MIS 5e	20111116
VM28-236	124	*G. tumida*	425-500	1	2.09	-0.02	131	MIS 5e	20111116
VM28-236	124	*G. tumida*	425-500	1	1.44	-0.99	137	MIS 5e	20111116

VM28-236	124	*G. tumida*	425-500	1	1.92	-1.07	116	MIS 5e	20111116
VM28-236	124	*G. tumida*	425-500	1	1.67	-0.24	111	MIS 5e	20111116
VM28-236	128	*G. tumida*	425-500	1	1.71	-0.94	130	MIS 5e	20111116
VM28-236	128	*G. tumida*	425-500	1	1.37	-0.11	103	MIS 5e	20111116
VM28-236	128	*G. tumida*	425-500	1	2.01	-0.84	111	MIS 5e	20111116
VM28-236	128	*G. tumida*	425-500	1	1.32	0.10	112	MIS 5e	20111116
VM28-236	128	*G. tumida*	425-500	1	1.71	-0.16	152	MIS 5e	20111116
VM28-236	128	*G. tumida*	425-500	1	2.26	-0.48	123	MIS 5e	20111116
VM28-236	128	*G. tumida*	425-500	1	1.40	-1.38	130	MIS 5e	20111116
VM28-236	128	*G. tumida*	425-500	1	1.26	-1.49	119	MIS 5e	20111116
VM28-236	128	*G. tumida*	425-500	1	1.69	-1.27	110	MIS 5e	20111116
VM28-236	128	*G. tumida*	425-500	1	1.64	-0.29	138	MIS 5e	20111116
VM28-236	132	*G. tumida*	425-500	1	2.01	0.65	130		20111116
VM28-236	132	*G. tumida*	425-500	1	1.35	-0.74	150		20111116
VM28-236	132	*G. tumida*	425-500	1	1.71	0.57	120		20111130
VM28-236	132	*G. tumida*	425-500	1	1.57	0.06	117		20111130

VM28-236	132	*G. tumida*	425-500	1	1.33	-1.13	144	20111130
VM28-236	132	*G. tumida*	425-500	1	1.68	0.62	91	20111130
VM28-236	132	*G. tumida*	425-500	1	1.65	0.55	99	20111130
VM28-236	136	*G. tumida*	425-500	1	1.97	0.04	152	20111130
VM28-236	136	*G. tumida*	425-500	1	1.57	-1.12	143	20111130
VM28-236	136	*G. tumida*	425-500	1	1.56	-0.64	124	20111130
VM28-236	136	*G. tumida*	425-500	1	2.07	-0.08	135	20111130
VM28-236	136	*G. tumida*	425-500	1	1.32	-0.73	151	20111130
VM28-236	136	*G. tumida*	425-500	1	1.43	0.16	109	20111130
VM28-236	136	*G. tumida*	425-500	1	1.77	-0.64	108	20111130
VM28-236	140	*G. tumida*	425-500	1	1.34	0.45	123	20111130
VM28-236	140	*G. tumida*	425-500	1	1.45	0.32	119	20111130
VM28-236	140	*G. tumida*	425-500	1	1.82	-0.77	122	20111130
VM28-236	140	*G. tumida*	425-500	1	1.55	-0.81	140	20111130
VM28-236	140	*G. tumida*	425-500	1	1.79	0.60	101	20111130
VM28-236	140	*G. tumida*	425-500	1	1.38	0.98	139	20111130

VM28-236	140	*G. tumida*	425-500	1	1.60	-0.05	103		20111130
VM28-236	140	*G. tumida*	425-500	1	1.63	0.04	125		20111130
VM28-236	144	*G. tumida*	425-500	1	1.57	0.06	131	MIS 6	20111202
VM28-236	144	*G. tumida*	425-500	1	1.54	0.58	153	MIS 6	20111202
VM28-236	144	*G. tumida*	425-500	1	1.31	0.75	143	MIS 6	20111202
VM28-236	144	*G. tumida*	425-500	1	1.77	0.25	124	MIS 6	20111202
VM28-236	144	*G. tumida*	425-500	1	1.36	1.01	91	MIS 6	20111202
VM28-236	144	*G. tumida*	425-500	1	1.85	0.69	135	MIS 6	20111202
VM28-236	144	*G. tumida*	425-500	1	1.76	0.90	133	MIS 6	20111202
VM28-236	144	*G. tumida*	425-500	1	1.43	0.38	122	MIS 6	20111202
VM28-236	148	*G. tumida*	425-500	1	1.28	-0.88	135	MIS 6	20111202
VM28-236	148	*G. tumida*	425-500	1	1.59	-0.22	144	MIS 6	20111202
VM28-236	148	*G. tumida*	425-500	1	2.00	-0.14	119	MIS 6	20111202
VM28-236	148	*G. tumida*	425-500	1	1.65	0.12	119	MIS 6	20111202
VM28-236	148	*G. tumida*	425-500	1	1.88	-0.27	120	MIS 6	20111202
VM28-236	148	*G. tumida*	425-500	1	1.67	0.01	134	MIS 6	20111202

VM28-236	148	*G. tumida*	425-500	1	1.65	0.95	100	MIS 6	20111202
VM28-236	148	*G. tumida*	425-500	1	1.64	0.13	131	MIS 6	20111202
VM28-236	148	*G. tumida*	425-500	1	1.73	0.37	140	MIS 6	20111202
VM28-236	148	*G. tumida*	425-500	1	1.30	-0.45	118	MIS 6	20111202
VM28-236	152	*G. tumida*	425-500	1	1.68	-0.38	125	MIS 6	20111202
VM28-236	152	*G. tumida*	425-500	1	1.64	0.32	117	MIS 6	20111202
VM28-236	152	*G. tumida*	425-500	1	1.83	0.12	117	MIS 6	20111202
VM28-236	152	*G. tumida*	425-500	1	1.65	1.06	120	MIS 6	20111202
VM28-236	152	*G. tumida*	425-500	1	1.53	-0.01	136	MIS 6	20111202
VM28-236	152	*G. tumida*	425-500	1	1.71	0.17	95	MIS 6	20111202
VM28-236	152	*G. tumida*	425-500	1	1.81	0.45	126	MIS 6	20111202
VM28-236	152	*G. tumida*	425-500	1	1.74	-0.12	113	MIS 6	20111202
VM28-236	156	*G. tumida*	425-500	1	1.71	0.62	124	MIS 6	20111202
VM28-236	156	*G. tumida*	425-500	1	1.60	0.28	123	MIS 6	20111202
VM28-236	156	*G. tumida*	425-500	1	1.50	-0.21	118	MIS 6	20111202
VM28-236	156	*G. tumida*	425-500	1	1.40	0.23	137	MIS 6	20111202

VM28-236	156	*G. tumida*	425-500	1	1.73	0.07	129	MIS 6	20111202
VM28-236	156	*G. tumida*	425-500	1	1.46	0.18	130	MIS 6	20111202
VM28-236	156	*G. tumida*	425-500	1	1.88	0.08	104	MIS 6	20111202
VM28-236	168	*G. tumida*	425-500	1	1.52	0.00	135		20111206
VM28-236	168	*G. tumida*	425-500	1	1.66	0.18	132		20111206
VM28-236	168	*G. tumida*	425-500	1	1.72	-0.43	107		20111206
VM28-236	168	*G. tumida*	425-500	1	1.57	-0.40	116		20111206
VM28-236	168	*G. tumida*	425-500	1	1.57	0.00	127		20111206
VM28-236	168	*G. tumida*	425-500	1	1.30	1.32	97		20111206
VM28-236	168	*G. tumida*	425-500	1	1.73	0.37	123		20111206
VM28-236	172	*G. tumida*	425-500	1	1.32	-0.53	131		20111206
VM28-236	172	*G. tumida*	425-500	1	1.37	0.17	128		20111206
VM28-236	172	*G. tumida*	425-500	1	1.48	-0.50	117		20111206
VM28-236	172	*G. tumida*	425-500	1	1.74	-0.17	116		20111206
VM28-236	172	*G. tumida*	425-500	1	1.66	-0.06	137		20111206
VM28-236	172	*G. tumida*	425-500	1	1.40	-0.33	96		20111206

VM28-236	172	*G. tumida*	425-500	1	1.89	-0.69	146	20111206
VM28-236	176	*G. tumida*	425-500	1	2.15	-0.79	111	20111206
VM28-236	176	*G. tumida*	425-500	1	1.64	-0.14	121	20111206
VM28-236	176	*G. tumida*	425-500	1	1.87	-0.23	132	20111206
VM28-236	176	*G. tumida*	425-500	1	1.60	-0.03	127	20111206
VM28-236	176	*G. tumida*	425-500	1	1.43	-0.91	113	20111207
VM28-236	176	*G. tumida*	425-500	1	1.35	-0.12	157	20111207
VM28-236	180	*G. tumida*	425-500	1	2.03	0.43	139	20111207
VM28-236	180	*G. tumida*	425-500	1	1.59	-0.04	122	20111207
VM28-236	180	*G. tumida*	425-500	1	1.70	-0.47	145	20111207
VM28-236	180	*G. tumida*	425-500	1	1.69	-0.26	107	20111207
VM28-236	180	*G. tumida*	425-500	1	1.59	-0.09	116	20111207
VM28-236	180	*G. tumida*	425-500	1	1.82	-0.41	108	20111207
VM28-236	184	*G. tumida*	425-500	1	1.91	-0.39	123	20111207
VM28-236	184	*G. tumida*	425-500	1	1.84	0.22	130	20111207
VM28-236	184	*G. tumida*	425-500	1	1.64	0.02	152	20111207

VM28-236	184	*G. tumida*	425-500	1	1.49	0.31	110	20111207
VM28-236	184	*G. tumida*	425-500	1	1.87	-0.39	145	20111207
VM28-236	184	*G. tumida*	425-500	1	1.60	-0.41	120	20111207
VM28-236	184	*G. tumida*	425-500	1	1.95	-0.68	147	20111207
VM28-236	196	*G. tumida*	425-500	1	1.83	-0.24	113	20111216
VM28-236	196	*G. tumida*	425-500	1	1.72	-0.72	128	20111216
VM28-236	196	*G. tumida*	425-500	1	1.85	0.19	126	20111216
VM28-236	196	*G. tumida*	425-500	1	1.73	-0.63	89	20111216
VM28-236	196	*G. tumida*	425-500	1	1.64	0.69	107	20111216
VM28-236	168	*G. tumida*	425-500	1	1.79	0.60	129	20111216
VM28-236	168	*G. tumida*	425-500	1	1.40	0.18	126	20111216
VM28-236	172	*G. tumida*	425-500	1	1.42	-0.43	145	20111216
VM28-236	172	*G. tumida*	425-500	1	1.74	-0.52	121	20111216
VM28-236	176	*G. tumida*	425-500	1	1.21	-0.36	109	20111216
VM28-236	176	*G. tumida*	425-500	1	1.56	0.95	139	20111216
VM28-236	176	*G. tumida*	425-500	1	1.87	-0.12	120	20111216

VM28-236	184	*G. tumida*	425-500	1	1.86	-0.35	129	20111216
VM28-236	184	*G. tumida*	425-500	1	1.67	-0.41	117	20111216
VM28-236	184	*G. tumida*	425-500	1	1.81	-0.63	98	20111216
VM28-236	76	*G. tumida*	425-500	1	2.05	-0.47	119	20120328
VM28-236	76	*G. tumida*	425-500	1	1.99	-0.11	130	20120328
VM28-236	76	*G. tumida*	425-500	1	1.88	-0.85	113	20120328
VM28-236	76	*G. tumida*	425-500	1	2.22	-0.17	102	20120328
VM28-236	80	*G. tumida*	425-500	1	2.40	-0.45	115	20120328
VM28-236	80	*G. tumida*	425-500	1	2.26	-1.11	117	20120328
VM28-236	80	*G. tumida*	425-500	1	1.91	1.15	107	20120328
VM28-236	80	*G. tumida*	425-500	1	2.03	-0.95	122	20120328
VM28-236	80	*G. tumida*	425-500	1	2.18	0.17	87	20120328
VM28-236	82	*G. tumida*	425-500	1	2.14	-0.10	138	20120328
VM28-236	82	*G. tumida*	425-500	1	2.01	0.41	109	20120328
VM28-236	82	*G. tumida*	425-500	1	2.11	0.52	116	20120328
VM28-236	82	*G. tumida*	425-500	1	2.18	-0.26	113	20120328

VM28-236	82	*G. tumida*	425-500	1	2.04	0.25	102		20120328
VM28-236	84	*G. tumida*	425-500	1	1.80	-1.21	105		20120328
VM28-236	84	*G. tumida*	425-500	1	2.05	-0.60	104		20120328
VM28-236	84	*G. tumida*	425-500	1	1.88	-0.94	103		20120328
VM28-236	84	*G. tumida*	425-500	1	1.71	-0.77	123		20120328
VM28-236	84	*G. tumida*	425-500	1	2.05	-0.66	102		20120328
VM28-236	96	*G. tumida*	425-500	1	2.01	-0.60	117		20120402
VM28-236	96	*G. tumida*	425-500	1	1.63	-0.88	95		20120402
VM28-236	96	*G. tumida*	425-500	1	2.11	-0.95	107		20120402
VM28-236	92	*G. tumida*	425-500	1	1.94	-0.99	96		20120402
VM28-236	16	*G. ruber*	250-355	10	1.33	-1.89		LGM	20070916
VM28-236	20	*G. ruber*	250-355	10	1.05	-1.69		LGM	20070916
VM28-236	24	*G. ruber*	250-355	10	1.08	-1.49			20070916
VM28-236	32	*G. ruber*	250-355	10	1.22	-1.38			20070916
VM28-236	36	*G. ruber*	250-355	10	1.48	-1.43			20070916
VM28-236	40	*G. ruber*	250-355	10	1.72	-1.50			20070916

VM28-236	44	*G. ruber*	250-355	10	1.57	-1.62			20070916
VM28-236	48	*G. ruber*	250-355	10	1.57	-1.70			20070916
VM28-236	52	*G. ruber*	250-355	10	1.28	-1.66			20070916
VM28-236	56	*G. ruber*	250-355	10	1.75	-1.77			20070916
VM28-236	60	*G. ruber*	250-355	10	1.38	-1.80			20070916
VM28-236	0	*G. ruber*	250-355	10	1.42	-2.32	115	LH	20091117
VM28-236	64	*G. ruber*	250-355	10	1.45	-1.62	146		20110509
VM28-236	64	*G. ruber*	250-355	10	1.26	-1.60	106		20110509
VM28-236	68	*G. ruber*	250-355	10	1.27	-1.47	122		20110509
VM28-236	68	*G. ruber*	250-355	10	1.14	-1.62	122		20110509
VM28-236	72	*G. ruber*	250-355	10	1.20	-1.53	117		20110509
VM28-236	72	*G. ruber*	250-355	10	1.26	-1.55	123		20110509
VM28-236	76	*G. ruber*	250-355	10	1.43	-1.38	105		20110509
VM28-236	76	*G. ruber*	250-355	10	1.47	-1.45	117		20110509
VM28-236	80	*G. ruber*	250-355	10	1.35	-1.52	103		20110509
VM28-236	80	*G. ruber*	250-355	10	1.40	-1.45	105		20110509

VM28-236	82	*G. ruber*	250-355	10	1.22	-1.25	122	20110509
VM28-236	82	*G. ruber*	250-355	10	1.37	-1.28	122	20110509
VM28-236	84	*G. ruber*	250-355	10	1.50	-1.79	100	20110509
VM28-236	84	*G. ruber*	250-355	10	1.57	-1.92	112	20110509
VM28-236	88	*G. ruber*	250-355	10	1.61	-2.08	127	20110509
VM28-236	88	*G. ruber*	250-355	10	1.66	-1.88	135	20110509
VM28-236	92	*G. ruber*	250-355	10	1.48	-1.91	123	20110509
VM28-236	92	*G. ruber*	250-355	10	1.21	-1.94	131	20110509
VM28-236	96	*G. ruber*	250-355	10	1.36	-1.85	110	20110509
VM28-236	96	*G. ruber*	250-355	10	1.32	-2.21	115	20110509
VM28-236	100	*G. ruber*	250-355	10	1.36	-1.78	109	20110509
VM28-236	100	*G. ruber*	250-355	10	1.48	-1.88	123	20110509
VM28-236	104	*G. ruber*	250-355	10	1.34	-2.02	100	20110509
VM28-236	104	*G. ruber*	250-355	10	1.38	-1.99	120	20110509
VM28-236	108	*G. ruber*	250-355	10	1.25	-1.79	121	20110513
VM28-236	108	*G. ruber*	250-355	10	1.26	-1.89	109	20110513

VM28-236	112	*G. ruber*	250-355	10	1.35	-1.83	113	20110513
VM28-236	112	*G. ruber*	250-355	10	1.25	-1.60	102	20110513
VM28-236	116	*G. ruber*	250-355	10	1.37	-1.94	119	20110513
VM28-236	116	*G. ruber*	250-355	10	1.22	-1.79	131	20110513
VM28-236	120	*G. ruber*	250-355	10	1.34	-1.73	113	20110513
VM28-236	120	*G. ruber*	250-355	10	1.09	-1.61	111	20110513
VM28-236	124	*G. ruber*	250-355	10	0.68	-1.52	111	20110513
VM28-236	124	*G. ruber*	250-355	10	1.21	-1.86	112	20110513
VM28-236	128	*G. ruber*	250-355	10	0.93	-1.94	101	20110513
VM28-236	128	*G. ruber*	250-355	10	0.88	-1.93	114	20110513
VM28-236	132	*G. ruber*	250-355	10	0.93	-1.72	131	20110513
VM28-236	132	*G. ruber*	250-355	10	1.15	-1.82	131	20110513
VM28-236	136	*G. ruber*	250-355	10	0.92	-1.80	119	20110513
VM28-236	136	*G. ruber*	250-355	10	0.88	-1.41	119	20110513
VM28-236	140	*G. ruber*	250-355	10	0.93	-1.50	106	20110513
VM28-236	140	*G. ruber*	250-355	10	0.86	-1.36	132	20110513

VM28-236	144	*G. ruber*	250-355	10	0.83	-1.20	130	20110513
VM28-236	144	*G. ruber*	250-355	10	1.05	-1.31	113	20110513
VM28-236	148	*G. ruber*	250-355	10	0.98	-1.37	132	20110513
VM28-236	148	*G. ruber*	250-355	10	0.86	-1.12	110	20110513
VM28-236	152	*G. ruber*	250-355	10	0.99	-1.16	130	20110513
VM28-236	152	*G. ruber*	250-355	10	1.20	-1.29	132	20110513
VM28-236	156	*G. ruber*	250-355	10	1.12	-1.31	120	20110513
VM28-236	156	*G. ruber*	250-355	10	0.94	-1.27	115	20110513
VM28-236	160	*G. ruber*	250-355	10	1.07	-1.08	115	20110513
VM28-236	160	*G. ruber*	250-355	10	0.79	-0.86	104	20110513
VM28-236	164	*G. ruber*	250-355	10	1.17	-0.99	120	20110513
VM28-236	164	*G. ruber*	250-355	10	0.93	-0.99	109	20110513
VM28-236	168	*G. ruber*	250-355	10	1.15	-1.12	113	20110513
VM28-236	168	*G. ruber*	250-355	10	0.86	-1.11	113	20110513
VM28-236	172	*G. ruber*	250-355	10	1.11	-1.26	124	20110513
VM28-236	172	*G. ruber*	250-355	10	0.86	-1.55	109	20110513

VM28-236	176	*G. ruber*	250-355	10	1.00	-1.62	133	20110513
VM28-236	176	*G. ruber*	250-355	10	1.03	-1.56	128	20110513
VM28-236	180	*G. ruber*	250-355	10	1.00	-1.50	116	20110513
VM28-236	180	*G. ruber*	250-355	10	0.99	-1.61	123	20110513
VM28-236	184	*G. ruber*	250-355	10	0.99	-1.40	134	20110516
VM28-236	184	*G. ruber*	250-355	10	1.02	-1.37	137	20110516
VM28-236	188	*G. ruber*	250-355	10	1.20	-1.38	136	20110516
VM28-236	188	*G. ruber*	250-355	10	1.12	-1.47	118	20110516
VM28-236	192	*G. ruber*	250-355	10	1.11	-1.66	117	20110516
VM28-236	192	*G. ruber*	250-355	10	1.18	-1.35	108	20110516
VM28-236	196	*G. ruber*	250-355	10	1.30	-1.64	120	20110516
VM28-236	196	*G. ruber*	250-355	10	1.13	-1.53	110	20110516
VM28-236	188	*G. ruber*	250-355	10	1.51	0.08	130	20111215
VM28-236	188	*G. ruber*	250-355	10	1.70	0.16	107	20111215
VM28-236	188	*G. ruber*	250-355	10	1.36	0.02	105	20111215
VM28-236	188	*G. ruber*	250-355	10	1.81	-0.22	134	20111215

VM28-236	188	*G. ruber*	250-355	10	1.74	-0.40	125	20111215
VM28-236	188	*G. ruber*	250-355	10	1.90	-0.23	112	20111215
VM28-236	188	*G. ruber*	250-355	10	1.38	0.14	123	20111215
VM28-236	188	*G. ruber*	250-355	10	1.95	-0.22	135	20111215
VM28-236	188	*G. ruber*	250-355	10	1.41	0.24	113	20111215
VM28-236	192	*G. ruber*	250-355	10	2.05	-0.39	125	20111215
VM28-236	192	*G. ruber*	250-355	10	1.92	-0.41	123	20111215
VM28-236	192	*G. ruber*	250-355	10	2.01	-0.54	108	20111215
VM28-236	192	*G. ruber*	250-355	10	1.28	0.14	108	20111215
VM28-236	192	*G. ruber*	250-355	10	1.63	0.32	97	20111215
VM28-236	192	*G. ruber*	250-355	10	1.76	-0.07	95	20111215
VM28-236	192	*G. ruber*	250-355	10	1.88	0.40	113	20111215
VM28-236	192	*G. ruber*	250-355	10	1.55	-0.05	117	20111215
VM28-236	192	*G. ruber*	250-355	10	1.53	-0.73	115	20111215
VM28-236	196	*G. ruber*	250-355	10	1.50	-0.94	148	20111215
VM28-236	196	*G. ruber*	250-355	10	2.13	-0.02	103	20111215

VM28-236	196	*G. ruber*	250-355	10	1.75	-0.58	146	20111215
VM28-236	196	*G. ruber*	250-355	10	1.98	-0.48	122	20111215
VM28-236	16	*P. obliquiloculata*	355-425	1	1.47	-0.21	33	20111129
VM28-236	16	*P. obliquiloculata*	355-425	1	1.37	0.04	41	20111129
VM28-236	16	*P. obliquiloculata*	355-425	1	1.42	-1.13	34	20111129
VM28-236	16	*P. obliquiloculata*	355-425	1	1.14	-0.92	50	20111129
VM28-236	16	*P. obliquiloculata*	355-425	1	1.20	-1.27	38	20111129
VM28-236	20	*P. obliquiloculata*	355-425	1	1.52	-0.27	43	20111129
VM28-236	20	*P. obliquiloculata*	355-425	1	1.15	-0.91	40	20111129
VM28-236	20	*P. obliquiloculata*	355-425	1	1.02	-0.55	40	20111129
VM28-236	20	*P. obliquiloculata*	355-425	1	1.04	-1.17	39	20111129
VM28-236	20	*P. obliquiloculata*	355-425	1	1.16	-1.22	37	20111129
VM28-236	16	*P. obliquiloculata*	355-425	1	1.37	-1.53	45	20111214
VM28-236	16	*P. obliquiloculata*	355-425	1	0.89	-0.67	38	20111214
VM28-236	16	*P. obliquiloculata*	355-425	1	0.84	-0.87	30	20111214
VM28-236	20	*P. obliquiloculata*	355-425	1	0.67	-0.40	30	20111214

VM28-236	20	*P. obliquiloculata*	355-425	1	1.49	-0.39	48	20111214
VM28-236	4	*C. wuellerstorfi*	>250	1	0.47	2.48	25	20100806
VM28-236	4	*C. wuellerstorfi*	>250	1	0.04	3.18	22	20100806
VM28-236	8	*C. wuellerstorfi*	>250	1	-0.03	3.29	35	20100806
VM28-236	12	*C. wuellerstorfi*	>250	1	0.24	2.50	31	20100806
VM28-236	12	*C. wuellerstorfi*	>250	1	0.01	4.08	25	20100806
VM28-236	16	*C. wuellerstorfi*	>250	1	-0.06	3.68	31	20100806
VM28-236	20	*C. wuellerstorfi*	>250	1	-0.01	3.40	30	20100806
VM28-236	24	*C. wuellerstorfi*	>250	1	-0.01	3.99	37	20100806
VM28-236	24	*C. wuellerstorfi*	>250	1	-0.02	3.77	43	20100806
VM28-236	32	*C. wuellerstorfi*	>250	1	-0.05	3.66	42	20100806
VM28-236	32	*C. wuellerstorfi*	>250	1	0.16	3.49	25	20100806
VM28-236	32	*C. wuellerstorfi*	>250	1	-0.01	3.82	27	20100806
VM28-236	36	*C. wuellerstorfi*	>250	1	0.13	3.33	44	20100806
VM28-236	36	*C. wuellerstorfi*	>250	1	0.10	3.45	33	20100806
VM28-236	36	*C. wuellerstorfi*	>250	1	-0.14	3.96	40	20100806

VM28-236	40	*C. wuellerstorfi*	>250	1	0.14	3.58	27	20100806
VM28-236	40	*C. wuellerstorfi*	>250	1	0.05	3.55	42	20100806
VM28-236	44	*C. wuellerstorfi*	>250	1	0.15	3.22	26	20100806
VM28-236	44	*C. wuellerstorfi*	>250	1	0.14	3.35	30	20100806
VM28-236	48	*C. wuellerstorfi*	>250	1	0.20	3.32	37	20100806
VM28-236	48	*C. wuellerstorfi*	>250	1	0.11	3.70	42	20100806
VM28-236	52	*C. wuellerstorfi*	>250	1	0.20	3.35	47	20100806
VM28-236	12	*C. wuellerstorfi*	>250	1	-0.07	3.72	223	20100809
VM28-236	20	*C. wuellerstorfi*	>250	1	-0.05	3.98	152	20100809
VM28-236	24	*C. wuellerstorfi*	>250	1	0.15	3.23	90	20100809
VM28-236	48	*C. wuellerstorfi*	>250	1	0.11	3.26	52	20100809
VM28-236	52	*C. wuellerstorfi*	>250	1	0.08	3.26	64	20100809
VM28-236	52	*C. wuellerstorfi*	>250	1	0.17	3.39	118	20100809
VM28-236	56	*C. wuellerstorfi*	>250	1	-0.03	3.34	80	20100809
VM28-236	56	*C. wuellerstorfi*	>250	1	0.07	3.08	112	20100809
VM28-236	56	*C. wuellerstorfi*	>250	1	0.18	3.14	59	20100809

VM28-236	4	*C. wuellerstorfi*	>250	1	0.18	2.48	114	20100809
VM28-236	8	*C. wuellerstorfi*	>250	1	-0.02	3.49	102	20100809
VM28-236	8	*C. wuellerstorfi*	>250	1	-0.24	3.56	188	20100809
VM28-236	52	*C. wuellerstorfi*	>250	1	-0.24	3.34	119	20100809
VM28-236	60	*C. wuellerstorfi*	>250	1	-0.17	3.33	128	20100809
VM28-236	136	*C. wuellerstorfi*	>250	1	-0.11	3.72	176	20120525
VM28-236	140	*C. wuellerstorfi*	>250	1	-0.28	4.00	166	20120525
VM28-236	144	*C. wuellerstorfi*	>250	1	-0.35	3.78	136	20120525
VM28-236	144	*C. wuellerstorfi*	>250	1	-0.11	3.65	80	20120525
VM28-236	144	*C. wuellerstorfi*	>250	1	-0.17	3.95	89	20120525
VM28-236	148	*C. wuellerstorfi*	>250	1	-0.10	3.26	99	20120525
VM28-236	76	*C. wuellerstorfi*	>250	1	-0.25	3.70	58	20120525
VM28-236	148	*C. wuellerstorfi*	>250	1	-0.11	4.10	145	20120525
VM28-236	76	*C. wuellerstorfi*	>250	1	0.19	2.78	65	20120525
VM28-236	76	*C. wuellerstorfi*	>250	1	-0.22	3.82	66	20120525
VM28-236	80	*C. wuellerstorfi*	>250	1	0.09	3.35	64	20120525

VM28-236	82	*C. wuellerstorfi*	>250	1	-0.08	4.12	97	20120525
VM28-236	82	*C. wuellerstorfi*	>250	1	-0.02	4.06	55	20120525
VM28-236	82	*C. wuellerstorfi*	>250	1	0.14	3.53	140	20120525
VM28-236	84	*C. wuellerstorfi*	>250	1	-0.01	3.51	96	20120525
VM28-236	88	*C. wuellerstorfi*	>250	1	0.05	2.87	118	20120525
VM28-236	88	*C. wuellerstorfi*	>250	1	0.20	2.77	125	20120525
VM28-236	88	*C. wuellerstorfi*	>250	1	0.00	3.02	128	20120525
VM28-236	92	*C. wuellerstorfi*	>250	1	-0.01	2.90	128	20120525
VM28-236	92	*C. wuellerstorfi*	>250	1	0.09	3.42	104	20120525
VM28-236	96	*C. wuellerstorfi*	>250	1	0.25	3.05	108	20120525
VM28-236	96	*C. wuellerstorfi*	>250	1	0.19	3.10	51	20120525
VM28-236	100	*C. wuellerstorfi*	>250	1	-0.01	3.20	57	20120525
VM28-236	104	*C. wuellerstorfi*	>250	1	0.06	3.19	109	20120525
VM28-236	112	*C. wuellerstorfi*	>250	1	0.08	3.18	86	20120525
VM28-236	116	*C. wuellerstorfi*	>250	1	0.13	2.96	141	20120525
VM28-236	116	*C. wuellerstorfi*	>250	1	-0.05	3.05	53	20120525

VM28-236	124	*C. wuellerstorfi*	>250	1	-0.21	3.64	59	20120525
VM28-236	128	*C. wuellerstorfi*	>250	1	-0.36	3.64	55	20120525
VM28-236	128	*C. wuellerstorfi*	>250	1	0.07	2.82	81	20120525
VM28-236	132	*C. wuellerstorfi*	>250	1	-0.17	3.90	100	20120525
VM28-236	152	*C. wuellerstorfi*	>250	1	-0.36	3.60	58	20120525
VM28-236	156	*C. wuellerstorfi*	>250	1	-0.30	3.83	101	20120525
VM28-236	160	*C. wuellerstorfi*	>250	1	-0.38	3.53	95	20120525
VM28-236	160	*C. wuellerstorfi*	>250	1	-0.33	3.79	67	20120525
VM28-236	160	*C. wuellerstorfi*	>250	1	-0.38	3.95	67	20120525
VM28-236	168	*C. wuellerstorfi*	>250	1	-0.36	3.58	159	20120525
VM28-236	168	*C. wuellerstorfi*	>250	1	-0.29	3.56	67	20120525
VM28-236	136	*C. wuellerstorfi*	>250	1	-0.27	3.84	39	20120529
VM28-236	136	*C. wuellerstorfi*	>250	1	-0.29	3.95	25	20120529
VM28-236	80	*C. wuellerstorfi*	>250	1	0.16	2.85	31	20120529
VM28-236	80	*C. wuellerstorfi*	>250	1	0.01	3.68	25	20120529
VM28-236	84	*C. wuellerstorfi*	>250	1	-0.20	3.00	46	20120529

VM28-236	92	*C. wuellerstorfi*	>250	1	0.04	3.09	49	20120529
VM28-236	96	*C. wuellerstorfi*	>250	1	-0.03	3.07	38	20120529
VM28-236	100	*C. wuellerstorfi*	>250	1	0.25	3.28	35	20120529
VM28-236	100	*C. wuellerstorfi*	>250	1	-0.23	3.38	34	20120529
VM28-236	104	*C. wuellerstorfi*	>250	1	-0.08	3.11	28	20120529
VM28-236	112	*C. wuellerstorfi*	>250	1	-0.03	3.06	45	20120529
VM28-236	112	*C. wuellerstorfi*	>250	1	0.18	3.15	47	20120529
VM28-236	116	*C. wuellerstorfi*	>250	1	-0.20	4.16	40	20120529
VM28-236	120	*C. wuellerstorfi*	>250	1	0.17	3.09	24	20120529
VM28-236	124	*C. wuellerstorfi*	>250	1	0.07	3.05	38	20120529
VM28-236	124	*C. wuellerstorfi*	>250	1	-0.26	4.03	31	20120529
VM28-236	128	*C. wuellerstorfi*	>250	1	0.02	2.96	22	20120529
VM28-236	132	*C. wuellerstorfi*	>250	1	0.04	3.13	27	20120529
VM28-236	132	*C. wuellerstorfi*	>250	1	-0.46	3.72	21	20120529
VM28-236	152	*C. wuellerstorfi*	>250	1	-0.23	4.05	36	20120529
VM28-236	152	*C. wuellerstorfi*	>250	1	-0.29	3.71	27	20120529

VM28-236	156	*C. wuellerstorfi*	>250	1	-0.34	3.87	34		20120529
VM28-236	156	*C. wuellerstorfi*	>250	1	-0.37	3.79	21		20120529
VM28-236	164	*C. wuellerstorfi*	>250	1	-0.27	3.72	26		20120529
VM28-236	164	*C. wuellerstorfi*	>250	1	-0.35	3.68	22		20120529
VM28-236	168	*C. wuellerstorfi*	>250	1	-0.15	3.18	38		20120529
VM28-230TW	4	*G. ruber*	250-355	10	1.55	-2.16	139		20100409
VM28-230	24	*G. tumida*	425-500	1	2.04	0.82	106	LGM	20090310
VM28-230	20	*G. tumida*	425-500	1	1.59	0.32	107	LGM	20090310
VM28-230	20	*G. tumida*	425-500	1	1.91	0.12	162	LGM	20090310
VM28-230	20	*G. tumida*	425-500	1	2.01	0.09	166	LGM	20090310
VM28-230	16	*G. tumida*	425-500	1	2.07	-0.44	174		20090310
VM28-230	16	*G. tumida*	425-500	1	1.88	0.21	99		20090310
VM28-230	16	*G. tumida*	425-500	1	1.82	0.03	125		20090310
VM28-230	12	*G. tumida*	425-500	1	2.01	-0.63	151		20090310
VM28-230	12	*G. tumida*	425-500	1	2.12	-1.03	143		20090310
VM28-230	12	*G. tumida*	425-500	1	2.10	-1.22	149		20090310

VM28-230	8	*G. tumida*	425-500	1	1.88	-1.35	110	20090310
VM28-230	8	*G. tumida*	425-500	1	1.98	-0.98	147	20090310
VM28-230	8	*G. tumida*	425-500	1	1.68	-0.41	171	20090310
VM28-230	5	*G. tumida*	425-500	1	1.87	-1.72	86	20090310
VM28-230	5	*G. tumida*	425-500	1	1.61	-1.25	124	20090310
VM28-230	40	*G. tumida*	425-500	1	2.01	-0.70	105	20090310
VM28-230	32	*G. tumida*	425-500	1	1.98	0.07	157	20090310
VM28-230	32	*G. tumida*	425-500	1	1.99	0.12	118	20090310
VM28-230	32	*G. tumida*	425-500	1	2.19	0.07	131	20090310
VM28-230	28	*G. tumida*	425-500	1	2.03	0.03	135	20090310
VM28-230	28	*G. tumida*	425-500	1	1.86	1.50	104	20090310
VM28-230	28	*G. tumida*	425-500	1	2.26	-0.09	121	20090310
VM28-230	60	*G. tumida*	425-500	1	2.19	-0.14	120	20090312
VM28-230	60	*G. tumida*	425-500	1	2.08	-0.11	117	20090312
VM28-230	60	*G. tumida*	425-500	1	2.14	0.49	117	20090312
VM28-230	56	*G. tumida*	425-500	1	1.83	0.05	151	20090312

VM28-230	56	*G. tumida*	425-500	1	2.00	0.09	144	20090312
VM28-230	56	*G. tumida*	425-500	1	2.02	-0.13	140	20090312
VM28-230	52	*G. tumida*	425-500	1	1.94	0.42	134	20090312
VM28-230	52	*G. tumida*	425-500	1	2.33	-0.42	119	20090312
VM28-230	52	*G. tumida*	425-500	1	2.37	0.10	132	20090312
VM28-230	48	*G. tumida*	425-500	1	2.14	0.70	118	20090312
VM28-230	48	*G. tumida*	425-500	1	2.00	0.22	129	20090312
VM28-230	48	*G. tumida*	425-500	1	1.92	0.17	140	20090312
VM28-230	44	*G. tumida*	425-500	1	2.30	0.25	118	20090312
VM28-230	44	*G. tumida*	425-500	1	2.24	-0.08	131	20090312
VM28-230	40	*G. tumida*	425-500	1	1.95	0.01	132	20090312
VM28-230	40	*G. tumida*	425-500	1	2.13	-0.57	132	20090312
VM28-230	40	*G. tumida*	425-500	1	1.82	0.37	152	20090312
VM28-230	36	*G. tumida*	425-500	1	2.12	0.50	123	20090312
VM28-230	36	*G. tumida*	425-500	1	2.02	0.27	117	20090312
VM28-230	36	*G. tumida*	425-500	1	2.25	-0.26	157	20090312

VM28-230	32	*G. tumida*	425-500	1	2.09	-0.04	115		20090320
VM28-230	32	*G. tumida*	425-500	1	1.96	0.07	119		20090320
VM28-230	32	*G. tumida*	425-500	1	1.78	-0.27	166		20090320
VM28-230	32	*G. tumida*	425-500	1	2.10	0.28	141		20090320
VM28-230	32	*G. tumida*	425-500	1	2.14	0.00	106		20090320
VM28-230	32	*G. tumida*	425-500	1	2.37	-0.02	127		20090320
VM28-230	5	*G. tumida*	425-500	1	1.97	-1.06	135		20090326
VM28-230	24	*G. tumida*	425-500	1	2.00	1.34	132	LGM	20090326
VM28-230	24	*G. tumida*	425-500	1	1.88	-0.01	105	LGM	20100909
VM28-230	24	*G. tumida*	425-500	1	1.43	0.47	129	LGM	20100909
VM28-230	24	*G. tumida*	425-500	1	2.01	0.30	112	LGM	20100909
VM28-230	24	*G. tumida*	425-500	1	1.89	-0.01	95	LGM	20100909
VM28-230	24	*G. tumida*	425-500	1	1.88	0.10	127	LGM	20100909
VM28-230	24	*G. tumida*	425-500	1	1.90	0.33	128	LGM	20100909
VM28-230	24	*G. tumida*	425-500	1	1.72	0.77	103	LGM	20100909
VM28-230	24	*G. tumida*	425-500	1	2.30	0.07	113	LGM	20100909

VM28-230	28	*G. tumida*	425-500	1	2.02	0.55	118	20100913
VM28-230	28	*G. tumida*	425-500	1	1.73	0.18	114	20100913
VM28-230	28	*G. tumida*	425-500	1	1.59	-0.40	115	20100913
VM28-230	28	*G. tumida*	425-500	1	2.15	-0.04	145	20100913
VM28-230	28	*G. tumida*	425-500	1	2.05	-0.18	131	20100913
VM28-230	28	*G. tumida*	425-500	1	1.93	0.37	117	20100913
VM28-230	28	*G. tumida*	425-500	1	1.83	0.22	113	20100913
VM28-230	28	*G. tumida*	425-500	1	1.84	-0.48	95	20100913
VM28-230	28	*G. tumida*	425-500	1	1.72	0.26	131	20100913
VM28-230	16	*G. tumida*	425-500	1	2.37	-0.03	112	20120326
VM28-230	16	*G. tumida*	425-500	1	2.12	0.23	116	20120326
VM28-230	16	*G. tumida*	425-500	1	2.57	-0.13	149	20120326
VM28-230	16	*G. tumida*	425-500	1	2.04	-0.09	146	20120326
VM28-230	16	*G. tumida*	425-500	1	2.06	0.06	102	20120326
VM28-230	12	*G. tumida*	425-500	1	0.25	-1.24	129	20120326
VM28-230	12	*G. tumida*	425-500	1	2.20	0.10	137	20120326

VM28-230	12	*G. tumida*	425-500	1	1.52	-0.50	137		20120326
VM28-230	12	*G. tumida*	425-500	1	1.68	0.96	109		20120326
VM28-230	12	*G. tumida*	425-500	1	1.90	-1.29	118		20120326
VM28-230	24	*G. ruber*	250-355	10	1.16	-1.37	137	LGM	20090305
VM28-230	20	*G. ruber*	250-355	10	1.22	-1.40	129	LGM	20090305
VM28-230	16	*G. ruber*	250-355	10	1.34	-1.78	131		20090305
VM28-230	12	*G. ruber*	250-355	10	1.31	-1.90	111		20090305
VM28-230	8	*G. ruber*	250-355	10	1.35	-2.03	125		20090305
VM28-230	5	*G. ruber*	250-355	10	1.41	-2.14	115		20090305
VM28-230	60	*G. ruber*	250-355	10	1.37	-1.36	127		20090310
VM28-230	56	*G. ruber*	250-355	10	1.41	-1.33	137		20090310
VM28-230	52	*G. ruber*	250-355	10	1.31	-1.35	123		20090310
VM28-230	48	*G. ruber*	250-355	10	1.50	-1.34	134		20090310
VM28-230	44	*G. ruber*	250-355	10	1.63	-1.22	124		20090310
VM28-230	40	*G. ruber*	250-355	10	1.39	-1.16	110		20090310
VM28-230	36	*G. ruber*	250-355	10	1.42	-1.17	147		20090310

VM28-230	32	*G. ruber*	250-355	10	1.50	-0.87	128	20090310
VM28-230	28	*G. ruber*	250-355	10	1.27	-1.47	135	20090310
VM28-230	20	*P. obliquiloculata*	355-425	1	1.20	-0.55	48	20111129
VM28-230	20	*P. obliquiloculata*	355-425	1	1.42	-0.35	45	20111129
VM28-230	20	*P. obliquiloculata*	355-425	1	1.34	-0.02	46	20111129
VM28-230	20	*P. obliquiloculata*	355-425	1	0.43	-1.08	48	20111129
VM28-230	20	*P. obliquiloculata*	355-425	1	1.40	0.12	36	20111129
VM28-230	24	*P. obliquiloculata*	355-425	1	1.11	0.10	38	20111129
VM28-230	24	*P. obliquiloculata*	355-425	1	0.91	-0.82	47	20111129
VM28-230	24	*P. obliquiloculata*	355-425	1	1.15	-0.27	47	20111129
VM28-230	24	*P. obliquiloculata*	355-425	1	0.79	-0.45	32	20111129
VM28-230	24	*P. obliquiloculata*	355-425	1	0.84	0.00	41	20111129
VM28-230	12	*C. wuellerstorfi*	>250	1	0.09	3.36	56	20100728
VM28-230	16	*C. wuellerstorfi*	>250	1	0.03	3.43	74	20100728
VM28-230	20	*C. wuellerstorfi*	>250	1	0.06	3.55	74	20100728
VM28-230	20	*C. wuellerstorfi*	>250	1	-0.16	3.84	50	20100728

VM28-230	24	*C. wuellerstorfi*	>250	1	-0.09	3.80	57	20100728
VM28-230	24	*C. wuellerstorfi*	>250	1	-0.12	3.98	51	20100728
VM28-230	28	*C. wuellerstorfi*	>250	1	-0.15	4.10	59	20100728
VM28-230	40	*C. wuellerstorfi*	>250	1	0.05	3.69	59	20100728
VM28-230	44	*C. wuellerstorfi*	>250	1	0.19	3.40	54	20100728
VM28-230	8	*C. wuellerstorfi*	>250	1	0.40	2.33	39	20100802
VM28-230	8	*C. wuellerstorfi*	>250	1	-0.13	3.95	28	20100802
VM28-230	8	*C. wuellerstorfi*	>250	1	0.08	3.46	36	20100802
VM28-230	12	*C. wuellerstorfi*	>250	1	-0.09	3.85	23	20100802
VM28-230	16	*C. wuellerstorfi*	>250	1	-0.08	3.98	22	20100802
VM28-230	24	*C. wuellerstorfi*	>250	1	-0.04	4.00	22	20100802
VM28-230	28	*C. wuellerstorfi*	>250	1	-0.02	3.97	28	20100802
VM28-230	32	*C. wuellerstorfi*	>250	1	0.14	3.53	32	20100802
VM28-230	36	*C. wuellerstorfi*	>250	1	-0.17	3.91	31	20100802
VM28-230	36	*C. wuellerstorfi*	>250	1	0.02	3.98	40	20100802
VM28-230	36	*C. wuellerstorfi*	>250	1	-0.14	3.63	24	20100802

VM28-230	40	*C. wuellerstorfi*	>250	1	0.05	3.33	24		20100802
VM28-230	44	*C. wuellerstorfi*	>250	1	0.07	3.27	24		20100802
VM28-230	44	*C. wuellerstorfi*	>250	1	0.14	3.63	25		20100802
VM28-230	48	*C. wuellerstorfi*	>250	1	0.00	3.69	33		20100802
VM28-230	52	*C. wuellerstorfi*	>250	1	-0.22	3.24	21		20100802
VM28-230	52	*C. wuellerstorfi*	>250	1	0.20	3.33	34		20100802
VM28-230	56	*C. wuellerstorfi*	>250	1	0.06	3.39	21		20100802
VM28-230	56	*C. wuellerstorfi*	>250	1	-0.01	3.61	30		20100802
VM28-230	56	*C. wuellerstorfi*	>250	1	0.04	3.67	23		20100802
VM28-230	60	*C. wuellerstorfi*	>250	1	-0.16	3.39	31		20100802
VM28-235TW	0	*G. tumida*	425-500	1	1.76	-1.19	108	LH	20100423
VM28-235TW	0	*G. tumida*	425-500	1	2.03	-1.54	153	LH	20100423
VM28-235TW	0	*G. tumida*	425-500	1	1.86	-1.03	138	LH	20100423
VM28-235TW	0	*G. tumida*	425-500	1	1.86	-1.50	134	LH	20100423
VM28-235TW	0	*G. tumida*	425-500	1	1.76	0.81	141	LH	20100423
VM28-235TW	2	*G. tumida*	425-500	1	1.76	-1.27	126	LH	20100616

VM28-235TW	2	*G. tumida*	425-500	1	1.62	-0.19	118	LH	20100616
VM28-235TW	2	*G. tumida*	425-500	1	1.58	-0.29	157	LH	20100616
VM28-235TW	3	*G. tumida*	425-500	1	1.83	-1.36	152		20100616
VM28-235TW	3	*G. tumida*	425-500	1	1.82	-1.60	146		20100616
VM28-235TW	3	*G. tumida*	425-500	1	1.69	-1.58	165		20100616
VM28-235TW	5	*G. tumida*	425-500	1	2.14	-1.70	152		20100616
VM28-235TW	5	*G. tumida*	425-500	1	2.10	-1.13	110		20100616
VM28-235TW	5	*G. tumida*	425-500	1	1.47	-0.23	131		20100616
VM28-235TW	7	*G. tumida*	425-500	1	1.80	-0.90	145		20100616
VM28-235TW	7	*G. tumida*	425-500	1	1.80	-1.10	117		20100616
VM28-235TW	7	*G. tumida*	425-500	1	1.94	-0.03	132		20100616
VM28-235TW	7	*G. ruber*	250-355	10	1.16	-2.13	126		20100409
VM28-235TW	5	*G. ruber*	250-355	10	1.55	-2.46	142		20100409
VM28-235TW	3	*G. ruber*	250-355	10	1.57	-2.38	147		20100409
VM28-235TW	2	*G. ruber*	250-355	10	1.43	-2.14	145	LH	20100409
VM28-235TW	2	*G. tumida*	355-425	1	1.86	-1.55	90	LH	20100927

VM28-235TW	2	*G. tumida*	355-425	1	2.01	-0.02	87	LH	20100927
VM28-235TW	2	*G. tumida*	355-425	1	1.92	-0.33	85	LH	20100927
VM28-235TW	2	*G. tumida*	355-425	1	1.76	-1.05	91	LH	20100927
VM28-235TW	2	*G. tumida*	355-425	1	2.05	-1.31	104	LH	20100927
VM28-235TW	2	*G. tumida*	355-425	1	2.05	-0.53	106	LH	20100927
VM28-235TW	2	*G. tumida*	355-425	1	1.97	0.64	99	LH	20100927
VM28-235TW	2	*G. tumida*	355-425	1	1.98	-0.78	89	LH	20100927
VM28-235	36	*G. tumida*	425-500	1	2.00	0.16	140		20090329
VM28-235	36	*G. tumida*	425-500	1	2.33	0.06	112		20090329
VM28-235	36	*G. tumida*	425-500	1	2.26	0.01	135		20090329
VM28-235	36	*G. tumida*	425-500	1	2.21	-0.27	132		20090329
VM28-235	36	*G. tumida*	425-500	1	1.98	1.32	127		20090329
VM28-235	36	*G. tumida*	425-500	1	1.86	0.19	143		20090329
VM28-235	36	*G. tumida*	425-500	1	1.93	0.54	131		20090329
VM28-235	36	*G. tumida*	425-500	1	2.10	-0.04	129		20090329
VM28-235	36	*G. tumida*	425-500	1	2.03	0.42	117		20090329

VM28-235	36	*G. tumida*	425-500	1	2.12	0.67	131	20090329
VM28-235	36	*G. tumida*	425-500	1	2.31	0.13	105	20090329
VM28-235	36	*G. tumida*	425-500	1	2.34	-0.10	141	20090329
VM28-235	8	*G. tumida*	425-500	1	1.70	-1.40	139	20100616
VM28-235	8	*G. tumida*	425-500	1	1.71	-1.02	128	20100616
VM28-235	8	*G. tumida*	425-500	1	1.69	-1.05	131	20100616
VM28-235	12	*G. tumida*	425-500	1	1.90	-0.89	159	20100616
VM28-235	12	*G. tumida*	425-500	1	1.79	-1.54	161	20100616
VM28-235	12	*G. tumida*	425-500	1	1.88	-1.05	144	20100616
VM28-235	16	*G. tumida*	425-500	1	1.87	-0.11	153	20100616
VM28-235	16	*G. tumida*	425-500	1	1.52	-0.83	160	20100616
VM28-235	16	*G. tumida*	425-500	1	1.86	0.31	127	20100616
VM28-235	20	*G. tumida*	425-500	1	1.81	-0.96	152	20100616
VM28-235	20	*G. tumida*	425-500	1	2.25	-0.90	119	20100616
VM28-235	20	*G. tumida*	425-500	1	2.00	0.59	136	20100616
VM28-235	45	*G. tumida*	425-500	1	1.98	-0.04	156	20100916

VM28-235	45	*G. tumida*	425-500	1	2.19	0.14	143	20100916
VM28-235	45	*G. tumida*	425-500	1	2.42	-0.47	115	20100916
VM28-235	48	*G. tumida*	425-500	1	2.18	0.74	116	20100916
VM28-235	48	*G. tumida*	425-500	1	1.82	0.08	143	20100916
VM28-235	52	*G. tumida*	425-500	1	1.74	-0.31	122	20100916
VM28-235	52	*G. tumida*	425-500	1	2.22	0.27	140	20100916
VM28-235	52	*G. tumida*	425-500	1	2.17	-0.39	150	20100916
VM28-235	56	*G. tumida*	425-500	1	2.27	-0.39	131	20100916
VM28-235	56	*G. tumida*	425-500	1	2.20	-0.10	157	20100916
VM28-235	56	*G. tumida*	425-500	1	2.33	-0.30	126	20100916
VM28-235	60	*G. tumida*	425-500	1	1.92	-0.05	141	20100916
VM28-235	60	*G. tumida*	425-500	1	2.09	0.56	98	20100916
VM28-235	60	*G. tumida*	425-500	1	1.70	-0.52	165	20100916
VM28-235	36	*G. tumida*	355-425	1	1.72	0.25	86	20100928
VM28-235	36	*G. tumida*	355-425	1	1.92	0.79	81	20100928
VM28-235	36	*G. tumida*	355-425	1	2.17	-0.21	98	20100928

VM28-235	36	*G. tumida*	355-425	1	2.20	-0.08	74		20100928
VM28-235	36	*G. tumida*	355-425	1	2.28	-0.03	82		20100928
VM28-235	36	*G. tumida*	355-425	1	1.96	-0.49	67		20100928
VM28-235	36	*G. tumida*	355-425	1	2.18	0.15	94		20100928
VM28-235	36	*G. tumida*	355-425	1	1.91	0.83	73		20100928
VM28-235	31	*G. tumida*	425-500	1	2.13	0.09	172	LGM	20101221
VM28-235	31	*G. tumida*	425-500	1	1.96	0.29	125	LGM	20101221
VM28-235	31	*G. tumida*	425-500	1	1.85	0.59	118	LGM	20101221
VM28-235	31	*G. tumida*	425-500	1	1.97	0.32	142	LGM	20101221
VM28-235	31	*G. tumida*	425-500	1	1.86	0.08	102	LGM	20101221
VM28-235	31	*G. tumida*	425-500	1	1.72	0.81	99	LGM	20101221
VM28-235	31	*G. tumida*	425-500	1	2.34	0.28	114	LGM	20101221
VM28-235	31	*G. tumida*	425-500	1	2.01	0.14	133	LGM	20101221
VM28-235	20	*G. tumida*	425-500	1	1.83	1.00	146		20120328
VM28-235	20	*G. tumida*	425-500	1	1.85	-0.07	143		20120328
VM28-235	20	*G. tumida*	425-500	1	1.64	0.68	127		20120328

VM28-235	20	*G. tumida*	425-500	1	1.81	-0.12	153		20120328
VM28-235	20	*G. tumida*	425-500	1	1.78	1.34	158		20120328
VM28-235	8	*G. ruber*	250-355	10	1.48	-2.19	149		20090326
VM28-235	12	*G. ruber*	250-355	10	1.31	-2.11	147		20090326
VM28-235	16	*G. ruber*	250-355	10	1.19	-2.16	128		20090326
VM28-235	20	*G. ruber*	250-355	10	0.91	-1.59	149		20090326
VM28-235	24	*G. ruber*	250-355	10	1.08	-1.20	132		20090326
VM28-235	28	*G. ruber*	250-355	10	1.12	-1.38	130		20090326
VM28-235	31	*G. ruber*	250-355	10	1.27	-1.09	130	LGM	20090326
VM28-235	36	*G. ruber*	250-355	10	1.33	-1.01	136		20090326
VM28-235	40	*G. ruber*	250-355	10	1.16	-1.18	131		20090326
VM28-235	45	*G. ruber*	250-355	10	1.39	-1.34	145		20090326
VM28-235	48	*G. ruber*	250-355	10	1.42	-1.32	132		20090326
VM28-235	52	*G. ruber*	250-355	10	1.52	-1.42	136		20090326
VM28-235	56	*G. ruber*	250-355	10	1.41	-1.45	131		20090326
VM28-235	60	*G. ruber*	250-355	10	1.34	-1.47	158		20090326

VM28-235	28	*P. obliquiloculata*	355-425	1	1.26	-0.30	47	20110620
VM28-235	28	*P. obliquiloculata*	355-425	1	0.60	-0.09	37	20110620
VM28-235	28	*P. obliquiloculata*	355-425	1	1.47	0.34	51	20110620
VM28-235	28	*P. obliquiloculata*	355-425	1	0.99	-0.31	39	20111122
VM28-235	28	*P. obliquiloculata*	355-425	1	0.77	0.32	33	20111122
VM28-235	28	*P. obliquiloculata*	355-425	1	0.58	-0.40	38	20111122
VM28-235	28	*P. obliquiloculata*	355-425	1	1.16	0.01	38	20111122
VM28-235	28	*P. obliquiloculata*	355-425	1	0.78	-0.82	24	20111122
VM28-232TW	6	*G. ruber*	250-355	10	1.27	-2.08	152	20100409
VM28-232TW	4	*G. ruber*	250-355	10	1.40	-2.20	147	20100409
VM28-232	20	*G. tumida*	425-500	1	2.09	0.03	109	20090226
VM28-232	16	*G. tumida*	425-500	1	2.08	0.02	157	20090226
VM28-232	16	*G. tumida*	425-500	1	2.24	-0.16	109	20090226
VM28-232	16	*G. tumida*	425-500	1	1.94	-0.21	118	20090226
VM28-232	12	*G. tumida*	425-500	1	1.87	0.12	157	20090226
VM28-232	12	*G. tumida*	425-500	1	2.06	0.37	144	20090226

VM28-232	12	*G. tumida*	425-500	1	2.04	1.54	120	20090226
VM28-232	8	*G. tumida*	425-500	1	1.69	-0.97	149	20090226
VM28-232	8	*G. tumida*	425-500	1	2.06	0.34	131	20090226
VM28-232	8	*G. tumida*	425-500	1	2.09	-0.29	125	20090226
VM28-232	4	*G. tumida*	425-500	1	1.93	-1.13	155	20090226
VM28-232	4	*G. tumida*	425-500	1	1.54	1.00	136	20090226
VM28-232	4	*G. tumida*	425-500	1	1.71	-0.10	148	20090226
VM28-232	0	*G. tumida*	425-500	1	2.14	-0.72	121	20090226
VM28-232	0	*G. tumida*	425-500	1	1.87	-0.86	155	20090226
VM28-232	0	*G. tumida*	425-500	1	1.58	-0.45	124	20090226
VM28-232	60	*G. tumida*	425-500	1	2.24	-0.96	134	20090305
VM28-232	60	*G. tumida*	425-500	1	1.64	0.29	120	20090305
VM28-232	60	*G. tumida*	425-500	1	1.82	-1.03	122	20090305
VM28-232	56	*G. tumida*	425-500	1	2.13	-0.52	144	20090305
VM28-232	56	*G. tumida*	425-500	1	1.23	-0.46	85	20090305
VM28-232	56	*G. tumida*	425-500	1	1.69	-0.88	106	20090305

VM28-232	52	*G. tumida*	425-500	1	1.78	-1.25	115	20090305
VM28-232	52	*G. tumida*	425-500	1	1.25	0.75	136	20090305
VM28-232	52	*G. tumida*	425-500	1	1.84	-0.38	106	20090305
VM28-232	48	*G. tumida*	425-500	1	1.68	-0.04	74	20090305
VM28-232	48	*G. tumida*	425-500	1	1.50	-0.65	92	20090305
VM28-232	48	*G. tumida*	425-500	1	1.94	-0.82	149	20090305
VM28-232	44	*G. tumida*	425-500	1	1.88	0.23	138	20090305
VM28-232	44	*G. tumida*	425-500	1	1.93	-0.40	101	20090305
VM28-232	44	*G. tumida*	425-500	1	1.72	-1.35	95	20090305
VM28-232	40	*G. tumida*	425-500	1	1.70	-0.40	159	20090305
VM28-232	40	*G. tumida*	425-500	1	1.68	-0.29	131	20090305
VM28-232	36	*G. tumida*	425-500	1	1.25	-0.75	160	20090305
VM28-232	36	*G. tumida*	425-500	1	1.96	-0.22	130	20090305
VM28-232	36	*G. tumida*	425-500	1	1.83	-0.52	129	20090305
VM28-232	32	*G. tumida*	425-500	1	1.68	-0.44	101	20090305
VM28-232	32	*G. tumida*	425-500	1	2.12	0.54	107	20090305

VM28-232	32	*G. tumida*	425-500	1	2.14	0.00	149	20090305
VM28-232	28	*G. tumida*	425-500	1	2.22	-0.07	125	20090305
VM28-232	28	*G. tumida*	425-500	1	1.77	0.05	135	20090305
VM28-232	28	*G. tumida*	425-500	1	1.86	-0.59	142	20090305
VM28-232	20	*G. tumida*	425-500	1	2.04	0.09	158	20090305
VM28-232	20	*G. tumida*	425-500	1	2.18	-0.07	124	20090305
VM28-232	16	*G. tumida*	425-500	1	2.29	0.22	132	20090320
VM28-232	16	*G. tumida*	425-500	1	2.08	0.44	146	20090320
VM28-232	16	*G. tumida*	425-500	1	2.08	0.52	102	20090320
VM28-232	16	*G. tumida*	425-500	1	1.97	0.04	93	20090320
VM28-232	16	*G. tumida*	425-500	1	1.98	0.08	163	20090320
VM28-232	16	*G. tumida*	425-500	1	2.13	1.70	92	20090320
VM28-232	16	*G. tumida*	425-500	1	2.08	0.21	103	20090320
VM28-232	16	*G. tumida*	425-500	1	2.30	0.24	129	20090320
VM28-232	0	*G. tumida*	425-500	1	1.59	-0.85	157	20090326
VM28-232	0	*G. tumida*	425-500	1	1.53	-1.44	102	20090326

VM28-232	0	*G. tumida*	425-500	1	1.95	0.18	142	20090326
VM28-232	0	*G. tumida*	425-500	1	1.77	-0.70	168	20090326
VM28-232	0	*G. tumida*	425-500	1	2.04	-1.09	120	20090326
VM28-232	0	*G. tumida*	425-500	1	1.75	-0.89	141	20090326
VM28-232	0	*G. tumida*	425-500	1	2.00	-1.01	108	20090326
VM28-232	0	*G. tumida*	425-500	1	2.14	-1.15	136	20090326
VM28-232	0	*G. tumida*	425-500	1	1.92	-1.10	155	20090326
VM28-232	2	*G. tumida*	425-500	1	2.00	-1.01	162	20100424
VM28-232	2	*G. tumida*	425-500	1	1.69	-1.64	108	20100424
VM28-232	2	*G. tumida*	425-500	1	2.22	-1.21	153	20100424
VM28-232	2	*G. tumida*	425-500	1	1.81	-0.90	138	20100424
VM28-232	2	*G. tumida*	425-500	1	1.70	-1.43	134	20100424
VM28-232	2	*G. tumida*	425-500	1	1.83	-1.13	141	20100424
VM28-232	2	*G. tumida*	425-500	1	2.01	-1.23	162	20100424
VM28-232	60	*G. ruber*	250-355	10	1.10	-1.54	122	20090226
VM28-232	56	*G. ruber*	250-355	10	1.15	-1.45	149	20090226

VM28-232	52	*G. ruber*	250-355	10	0.70	-1.56	115		20090226
VM28-232	44	*G. ruber*	250-355	10	0.89	-1.60	113		20090226
VM28-232	40	*G. ruber*	250-355	10	1.15	-1.89	131		20090226
VM28-232	36	*G. ruber*	250-355	10	1.23	-1.63	147		20090226
VM28-232	32	*G. ruber*	250-355	10	1.20	-1.70	131		20090226
VM28-232	28	*G. ruber*	250-355	10	1.28	-1.59	132		20090226
VM28-232	20	*G. ruber*	250-355	10	1.38	-1.39	126		20090226
VM28-232	16	*G. ruber*	250-355	10	1.40	-1.32	97		20090226
VM28-232	12	*G. ruber*	250-355	10	1.32	-1.79	121		20090226
VM28-232	8	*G. ruber*	250-355	10	1.21	-1.63	117		20090226
VM28-232	4	*G. ruber*	250-355	10	1.04	-1.89	126		20090226
VM28-232	0	*G. ruber*	250-355	10	1.37	-2.32	140		20090226
VM28-233	1	*G. tumida*	425-500	1	1.87	-0.74	131	LH	20090322
VM28-233	1	*G. tumida*	425-500	1	2.04	-1.17	154	LH	20090322
VM28-233	1	*G. tumida*	425-500	1	1.82	-0.99	155	LH	20090322
VM28-233	1	*G. tumida*	425-500	1	1.83	-0.99	142	LH	20090322

VM28-233	1	*G. tumida*	425-500	1	1.76	-1.06	128	LH	20090322
VM28-233	1	*G. tumida*	425-500	1	1.92	-1.19	139	LH	20090322
VM28-233	1	*G. tumida*	425-500	1	1.83	-1.22	93	LH	20090322
VM28-233	1	*G. tumida*	425-500	1	1.67	-0.60	124	LH	20090322
VM28-233	1	*G. tumida*	425-500	1	2.05	-1.01	128	LH	20090322
VM28-233	1	*G. tumida*	425-500	1	2.03	-0.84	136	LH	20090322
VM28-233	1	*G. tumida*	425-500	1	2.02	-0.65	170	LH	20090322
VM28-233	1	*G. tumida*	425-500	1	2.05	-0.87	110	LH	20090322
VM28-233	32	*G. tumida*	425-500	1	2.06	0.87	135	LGM	20090322
VM28-233	32	*G. tumida*	425-500	1	2.25	0.43	131	LGM	20090322
VM28-233	32	*G. tumida*	425-500	1	1.74	0.19	123	LGM	20090322
VM28-233	32	*G. tumida*	425-500	1	1.95	0.30	116	LGM	20090322
VM28-233	32	*G. tumida*	425-500	1	2.03	0.37	149	LGM	20090322
VM28-233	32	*G. tumida*	425-500	1	2.25	0.90	135	LGM	20090322
VM28-233	32	*G. tumida*	425-500	1	2.01	0.21	126	LGM	20090322
VM28-233	32	*G. tumida*	425-500	1	1.77	0.81	141	LGM	20090322

VM28-233	32	*G. tumida*	425-500	1	1.93	0.74	122	LGM	20090322
VM28-233	32	*G. tumida*	425-500	1	2.17	1.17	117	LGM	20090322
VM28-233	32	*G. tumida*	425-500	1	2.24	0.14	131	LGM	20090322
VM28-233	32	*G. tumida*	425-500	1	1.87	1.78	108	LGM	20090322
VM28-233	4	*G. tumida*	425-500	1	1.94	-1.43	155	LH	20100614
VM28-233	4	*G. tumida*	425-500	1	1.71	-0.95	159	LH	20100614
VM28-233	4	*G. tumida*	425-500	1	2.06	-1.25	146	LH	20100614
VM28-233	4	*G. tumida*	425-500	1	1.77	-0.55	131	LH	20100614
VM28-233	8	*G. tumida*	425-500	1	1.99	0.46	119		20100614
VM28-233	8	*G. tumida*	425-500	1	1.57	-1.72	129		20100614
VM28-233	8	*G. tumida*	425-500	1	1.88	-0.92	128		20100614
VM28-233	12	*G. tumida*	425-500	1	2.05	-1.57	143		20100614
VM28-233	12	*G. tumida*	425-500	1	1.83	-1.12	178		20100614
VM28-233	16	*G. tumida*	425-500	1	1.56	-0.04	145		20100614
VM28-233	16	*G. tumida*	425-500	1	1.98	-0.88	130		20100614
VM28-233	16	*G. tumida*	425-500	1	1.75	-1.09	175		20100614

VM28-233	20	*G. tumida*	425-500	1	1.64	-0.31	127		20100614
VM28-233	20	*G. tumida*	425-500	1	1.82	-0.41	136		20100614
VM28-233	20	*G. tumida*	425-500	1	1.60	-0.28	108		20100614
VM28-233	24	*G. tumida*	425-500	1	2.17	-0.97	107		20100614
VM28-233	24	*G. tumida*	425-500	1	1.67	0.62	123		20100614
VM28-233	24	*G. tumida*	425-500	1	1.84	-0.39	159		20100614
VM28-233	28	*G. tumida*	425-500	1	1.97	0.59	130		20100614
VM28-233	28	*G. tumida*	425-500	1	1.91	0.03	111		20100614
VM28-233	28	*G. tumida*	425-500	1	1.80	0.37	138		20100614
VM28-233	36	*G. tumida*	425-500	1	2.02	-0.31	163	LGM	20100614
VM28-233	36	*G. tumida*	425-500	1	1.96	-0.35	127	LGM	20100614
VM28-233	36	*G. tumida*	425-500	1	2.03	0.11	122	LGM	20100614
VM28-233	32	*G. tumida*	355-425	1	1.93	1.01	66	LGM	20100928
VM28-233	32	*G. tumida*	355-425	1	1.85	0.56	62	LGM	20100928
VM28-233	32	*G. tumida*	355-425	1	2.21	0.06	73	LGM	20100928
VM28-233	32	*G. tumida*	355-425	1	2.07	0.40	67	LGM	20100928

VM28-233	32	*G. tumida*	355-425	1	2.03	-0.14	77	LGM	20100928
VM28-233	32	*G. tumida*	355-425	1	2.18	0.06	96	LGM	20100928
VM28-233	32	*G. tumida*	355-425	1	1.92	0.23	87	LGM	20100928
VM28-233	4	*G. tumida*	425-500	1	1.90	-0.60	154	LH	20110830
VM28-233	4	*G. tumida*	425-500	1	1.71	-1.16	140	LH	20110830
VM28-233	4	*G. tumida*	425-500	1	2.02	-0.65	125	LH	20110830
VM28-233	4	*G. tumida*	425-500	1	1.75	-1.18	100	LH	20110830
VM28-233	4	*G. tumida*	425-500	1	1.72	-1.50	140	LH	20110830
VM28-233	4	*G. tumida*	425-500	1	1.86	-0.99	137	LH	20110830
VM28-233	8	*G. tumida*	425-500	1	1.77	-1.24	135		20110830
VM28-233	8	*G. tumida*	425-500	1	1.96	-1.09	146		20110830
VM28-233	12	*G. tumida*	355-425	1	2.11	0.63	91		20110831
VM28-233	16	*G. tumida*	355-425	1	1.87	1.08	71		20110831
VM28-233	16	*G. tumida*	355-425	1	1.88	0.35	90		20110831
VM28-233	16	*G. tumida*	355-425	1	2.28	0.12	91		20110831
VM28-233	16	*G. tumida*	355-425	1	2.38	-0.30	90		20110831

VM28-233	8	*G. tumida*	425-500	1	1.63	1.01	101	20110831
VM28-233	8	*G. tumida*	425-500	1	1.95	-1.21	104	20110831
VM28-233	12	*G. tumida*	425-500	1	1.99	-1.30	182	20110831
VM28-233	16	*G. tumida*	425-500	1	1.93	0.77	115	20110831
VM28-233	16	*G. tumida*	425-500	1	2.59	-0.02	107	20110831
VM28-233	20	*G. tumida*	425-500	1	2.19	0.10	151	20110831
VM28-233	20	*G. tumida*	425-500	1	1.94	0.71	142	20110831
VM28-233	20	*G. tumida*	425-500	1	1.89	0.56	140	20110831
VM28-233	24	*G. tumida*	425-500	1	1.96	0.24	154	20110831
VM28-233	24	*G. tumida*	425-500	1	1.96	-0.09	143	20110831
VM28-233	24	*G. tumida*	425-500	1	2.09	-0.06	146	20110831
VM28-233	24	*G. tumida*	425-500	1	2.20	0.04	131	20110831
VM28-233	24	*G. tumida*	425-500	1	2.28	0.15	119	20110831
VM28-233	24	*G. tumida*	425-500	1	1.76	0.60	141	20110831
VM28-233	24	*G. tumida*	425-500	1	1.83	0.08	88	20110831
VM28-233	24	*G. tumida*	425-500	1	1.82	0.13	108	20110831

VM28-233	44	*G. tumida*	355-425	1	2.00	0.48	86		20110902
VM28-233	44	*G. tumida*	355-425	1	2.37	-0.08	90		20110902
VM28-233	44	*G. tumida*	355-425	1	2.01	0.28	60		20110902
VM28-233	44	*G. tumida*	355-425	1	1.80	-0.04	67		20110902
VM28-233	48	*G. tumida*	355-425	1	2.18	-0.03	97		20110902
VM28-233	48	*G. tumida*	355-425	1	1.91	0.88	91		20110902
VM28-233	48	*G. tumida*	355-425	1	2.15	0.12	68		20110902
VM28-233	32	*G. tumida*	355-425	1	2.12	1.02	88	LGM	20110902
VM28-233	52	*G. tumida*	425-500	1	2.17	0.16	116		20110902
VM28-233	52	*G. tumida*	425-500	1	2.17	0.18	102		20110902
VM28-233	52	*G. tumida*	425-500	1	2.27	-0.43	150		20110902
VM28-233	52	*G. tumida*	425-500	1	1.92	-0.03	122		20110902
VM28-233	52	*G. tumida*	425-500	1	2.02	0.36	125		20110902
VM28-233	52	*G. tumida*	425-500	1	2.28	0.01	158		20110902
VM28-233	52	*G. tumida*	425-500	1	2.10	0.66	137		20110902
VM28-233	52	*G. tumida*	425-500	1	2.39	-0.27	131		20110902

VM28-233	52	*G. tumida*	425-500	1	1.80	-0.19	94		20110902
VM28-233	52	*G. tumida*	425-500	1	2.03	0.94	126		20110902
VM28-233	48	*G. tumida*	425-500	1	2.36	0.05	110		20110902
VM28-233	48	*G. tumida*	425-500	1	2.39	-0.27	104		20110902
VM28-233	48	*G. tumida*	425-500	1	2.10	0.05	107		20110902
VM28-233	48	*G. tumida*	425-500	1	2.06	0.14	90		20110902
VM28-233	48	*G. tumida*	425-500	1	2.18	0.29	128		20110902
VM28-233	32	*G. tumida*	425-500	1	2.07	0.84	128	LGM	20110902
VM28-233	32	*G. tumida*	425-500	1	1.94	-0.10	122	LGM	20110902
VM28-233	32	*G. tumida*	425-500	1	2.04	0.57	117	LGM	20110902
VM28-233	32	*G. tumida*	425-500	1	1.88	0.39	112	LGM	20110902
VM28-233	32	*G. tumida*	425-500	1	1.86	-0.18	105	LGM	20110902
VM28-233	32	*G. tumida*	425-500	1	2.09	0.03	134	LGM	20110902
VM28-233	48	*G. tumida*	>500	1	2.12	0.03	176		20110902
VM28-233	48	*G. tumida*	>500	1	1.89	0.41	147		20110902
VM28-233	28	*G. tumida*	355-425	1	2.28	0.28	67		20110906

VM28-233	28	*G. tumida*	355-425	1	2.30	-0.68	76		20110906
VM28-233	44	*G. tumida*	355-425	1	2.09	-0.06	97		20110906
VM28-233	44	*G. tumida*	355-425	1	2.26	-0.06	89		20110906
VM28-233	44	*G. tumida*	355-425	1	2.27	-0.03	96		20110906
VM28-233	44	*G. tumida*	355-425	1	1.86	-0.32	71		20110906
VM28-233	28	*G. tumida*	425-500	1	1.99	0.38	131		20110906
VM28-233	28	*G. tumida*	425-500	1	1.83	0.07	130		20110906
VM28-233	36	*G. tumida*	425-500	1	2.11	0.04	164	LGM	20110906
VM28-233	36	*G. tumida*	425-500	1	2.18	-0.35	160	LGM	20110906
VM28-233	36	*G. tumida*	425-500	1	2.32	0.24	111	LGM	20110906
VM28-233	36	*G. tumida*	425-500	1	2.08	-0.17	135	LGM	20110906
VM28-233	36	*G. tumida*	425-500	1	1.98	0.44	123	LGM	20110906
VM28-233	36	*G. tumida*	425-500	1	2.21	0.15	102	LGM	20110906
VM28-233	40	*G. tumida*	425-500	1	1.81	-0.33	110		20110906
VM28-233	40	*G. tumida*	425-500	1	2.00	-0.04	155		20110906
VM28-233	40	*G. tumida*	425-500	1	2.02	0.30	151		20110906

VM28-233	40	*G. tumida*	425-500	1	1.82	0.40	74		20110906
VM28-233	40	*G. tumida*	425-500	1	1.89	-0.73	73		20110906
VM28-233	40	*G. tumida*	425-500	1	2.27	-0.24	128		20110906
VM28-233	140	*G. tumida*	425-500	1	2.22	-0.55	102	MIS 5e	20120502
VM28-233	140	*G. tumida*	425-500	1	1.81	-0.91	114	MIS 5e	20120502
VM28-233	140	*G. tumida*	425-500	1	1.77	-0.84	153	MIS 5e	20120502
VM28-233	140	*G. tumida*	425-500	1	2.26	-1.01	143	MIS 5e	20120502
VM28-233	140	*G. tumida*	425-500	1	1.98	-0.53	120	MIS 5e	20120502
VM28-233	144	*G. tumida*	425-500	1	1.66	-0.83	113	MIS 5e	20120502
VM28-233	144	*G. tumida*	425-500	1	2.21	-1.23	122	MIS 5e	20120502
VM28-233	144	*G. tumida*	425-500	1	1.44	-1.02	110	MIS 5e	20120502
VM28-233	144	*G. tumida*	425-500	1	1.73	-0.57	154	MIS 5e	20120502
VM28-233	144	*G. tumida*	425-500	1	1.99	-0.99	148	MIS 5e	20120502
VM28-233	148	*G. tumida*	425-500	1	1.69	-0.98	127	MIS 5e	20120503
VM28-233	148	*G. tumida*	425-500	1	1.90	-1.15	157	MIS 5e	20120503
VM28-233	148	*G. tumida*	425-500	1	1.91	-0.59	148	MIS 5e	20120503

VM28-233	148	*G. tumida*	425-500	1	1.57	-1.17	135	MIS 5e	20120503
VM28-233	148	*G. tumida*	425-500	1	2.03	-0.66	132	MIS 5e	20120503
VM28-233	152	*G. tumida*	425-500	1	1.61	-0.60	125		20120503
VM28-233	152	*G. tumida*	425-500	1	1.90	-0.57	108		20120503
VM28-233	152	*G. tumida*	425-500	1	2.40	-1.18	165		20120503
VM28-233	152	*G. tumida*	425-500	1	1.61	-1.11	143		20120503
VM28-233	152	*G. tumida*	425-500	1	1.60	-0.48	123		20120503
VM28-233	156	*G. tumida*	425-500	1	1.72	0.50	118		20120503
VM28-233	156	*G. tumida*	425-500	1	1.70	-0.66	121		20120503
VM28-233	156	*G. tumida*	425-500	1	1.96	-1.05	156		20120503
VM28-233	156	*G. tumida*	425-500	1	1.71	-1.08	157		20120503
VM28-233	156	*G. tumida*	425-500	1	1.60	-1.34	135		20120503
VM28-233	160	*G. tumida*	425-500	1	1.29	0.01	127		20120503
VM28-233	160	*G. tumida*	425-500	1	1.99	-1.02	116		20120503
VM28-233	160	*G. tumida*	425-500	1	1.26	-1.29	161		20120503
VM28-233	160	*G. tumida*	425-500	1	1.51	-1.20	147		20120503

VM28-233	160	*G. tumida*	425-500	1	1.67	-1.48	149		20120503
VM28-233	164	*G. tumida*	425-500	1	1.93	-0.82	146		20120503
VM28-233	164	*G. tumida*	425-500	1	1.60	-0.26	126		20120503
VM28-233	164	*G. tumida*	425-500	1	1.44	-1.00	125		20120503
VM28-233	164	*G. tumida*	425-500	1	1.26	-1.16	159		20120503
VM28-233	164	*G. tumida*	425-500	1	1.86	-0.27	135		20120503
VM28-233	148	*G. tumida*	425-500	1	2.10	0.06	127	MIS 5e	20120504
VM28-233	148	*G. tumida*	425-500	1	1.44	0.31	157	MIS 5e	20120504
VM28-233	148	*G. tumida*	425-500	1	1.96	-0.22	148	MIS 5e	20120504
VM28-233	148	*G. tumida*	425-500	1	1.13	-0.82	135	MIS 5e	20120504
VM28-233	148	*G. tumida*	425-500	1	1.27	0.91	132	MIS 5e	20120504
VM28-233	152	*G. tumida*	425-500	1	1.57	-0.17	125		20120504
VM28-233	152	*G. tumida*	425-500	1	1.94	-0.24	108		20120504
VM28-233	152	*G. tumida*	425-500	1	1.70	1.01	165		20120504
VM28-233	152	*G. tumida*	425-500	1	1.42	0.41	143		20120504
VM28-233	152	*G. tumida*	425-500	1	1.65	-0.18	123		20120504

VM28-233	156	*G. tumida*	425-500	1	1.23	0.95	118		20120504
VM28-233	156	*G. tumida*	425-500	1	1.55	0.39	121		20120504
VM28-233	156	*G. tumida*	425-500	1	1.73	0.64	156		20120504
VM28-233	156	*G. tumida*	425-500	1	1.55	0.70	157		20120504
VM28-233	156	*G. tumida*	425-500	1	1.21	-0.20	135		20120504
VM28-233	160	*G. tumida*	425-500	1	1.70	0.58	127		20120504
VM28-233	160	*G. tumida*	425-500	1	1.67	0.66	116		20120504
VM28-233	160	*G. tumida*	425-500	1	1.85	0.44	161		20120504
VM28-233	160	*G. tumida*	425-500	1	1.26	-1.35	147		20120504
VM28-233	160	*G. tumida*	425-500	1	1.73	0.24	149		20120504
VM28-233	164	*G. tumida*	425-500	1	1.74	-0.06	146		20120504
VM28-233	164	*G. tumida*	425-500	1	1.89	0.01	126		20120504
VM28-233	164	*G. tumida*	425-500	1	1.64	0.29	125		20120504
VM28-233	164	*G. tumida*	425-500	1	1.76	-0.10	159		20120504
VM28-233	164	*G. tumida*	425-500	1	1.75	0.05	135		20120504
VM28-233	188	*G. tumida*	425-500	1	1.70	0.39	128	MIS 6	20120504

VM28-233	188	*G. tumida*	425-500	1	1.97	-0.31	165	MIS 6	20120504
VM28-233	188	*G. tumida*	425-500	1	1.59	0.36	155	MIS 6	20120504
VM28-233	188	*G. tumida*	425-500	1	1.91	-0.25	130	MIS 6	20120504
VM28-233	188	*G. tumida*	425-500	1	1.80	-0.19	113	MIS 6	20120504
VM28-233	192	*G. tumida*	425-500	1	2.14	-0.19	125	MIS 6	20120504
VM28-233	192	*G. tumida*	425-500	1	1.85	0.03	118	MIS 6	20120504
VM28-233	192	*G. tumida*	425-500	1	1.67	0.13	139	MIS 6	20120504
VM28-233	192	*G. tumida*	425-500	1	2.10	-0.31	135	MIS 6	20120504
VM28-233	192	*G. tumida*	425-500	1	1.71	-0.07	130	MIS 6	20120504
VM28-233	12	*G. ruber*	250-355	10	1.44	-2.04	133		20090312
VM28-233	8	*G. ruber*	250-355	10	1.48	-2.30	150		20090312
VM28-233	4	*G. ruber*	250-355	10	1.44	-2.34	141	LH	20090312
VM28-233	1	*G. ruber*	250-355	10	1.44	-2.47	139	LH	20090312
VM28-233	16	*G. ruber*	250-355	10	0.85	-1.78	118		20090320
VM28-233	20	*G. ruber*	250-355	10	1.04	-2.05	126		20090320
VM28-233	24	*G. ruber*	250-355	10	1.18	-1.33	158		20090320

VM28-233	28	*G. ruber*	250-355	10	1.60	-1.48	149		20090320
VM28-233	32	*G. ruber*	250-355	10	1.40	-0.88	114	LGM	20090320
VM28-233	36	*G. ruber*	250-355	10	1.42	-1.47	141	LGM	20090320
VM28-233	40	*G. ruber*	250-355	10	1.25	-1.12	112		20090320
VM28-233	44	*G. ruber*	250-355	10	1.25	-1.09	121		20090320
VM28-233	48	*G. ruber*	250-355	10	1.15	-1.14	120		20090320
VM28-233	52	*G. ruber*	250-355	10	1.50	-1.28	127		20090320
VM28-233	56	*G. ruber*	250-355	10	1.34	-1.46	115		20090320
VM28-233	60	*G. ruber*	250-355	10	1.26	-1.47	106		20090320
VM28-233	64	*G. ruber*	250-355	10	1.32	-1.63	135		20110130
VM28-233	68	*G. ruber*	250-355	10	1.42	-1.55	146		20110130
VM28-233	72	*G. ruber*	250-355	10	1.20	-1.57	135		20110130
VM28-233	76	*G. ruber*	250-355	10	1.38	-1.80	133		20110130
VM28-233	80	*G. ruber*	250-355	10	1.12	-1.77	141		20110130
VM28-233	84	*G. ruber*	250-355	10	1.35	-1.78	161		20110130
VM28-233	88	*G. ruber*	250-355	10	1.53	-1.91	148		20110130

VM28-233	92	*G. ruber*	250-355	10	1.31	-1.67	157	20110130
VM28-233	160	*G. ruber*	250-355	10	1.31	-2.37	134	20110516
VM28-233	160	*G. ruber*	250-355	10	1.36	-2.29	120	20110516
VM28-233	164	*G. ruber*	250-355	10	0.98	-2.00	117	20110516
VM28-233	164	*G. ruber*	250-355	10	0.72	-2.27	115	20110516
VM28-233	168	*G. ruber*	250-355	10	0.90	-1.64	133	20110516
VM28-233	172	*G. ruber*	250-355	10	1.02	-1.80	120	20110516
VM28-233	172	*G. ruber*	250-355	10	0.70	-1.80	121	20110516
VM28-233	176	*G. ruber*	250-355	10	0.69	-1.25	117	20110516
VM28-233	176	*G. ruber*	250-355	10	0.67	-1.33	129	20110516
VM28-233	180	*G. ruber*	250-355	10	0.89	-1.39	121	20110516
VM28-233	184	*G. ruber*	250-355	10	0.98	-1.14	118	20110516
VM28-233	184	*G. ruber*	250-355	10	0.83	-1.11	125	20110516
VM28-233	188	*G. ruber*	250-355	10	1.06	-1.13	138	20110516
VM28-233	188	*G. ruber*	250-355	10	0.89	-1.07	124	20110516
VM28-233	192	*G. ruber*	250-355	10	0.96	-1.17	118	20110516

VM28-233	192	*G. ruber*	250-355	10	0.98	-1.06	116	20110516
VM28-233	96	*G. ruber*	250-355	10	1.16	-1.69	122	20110907
VM28-233	96	*G. ruber*	250-355	10	1.18	-1.72	115	20110907
VM28-233	100	*G. ruber*	250-355	10	0.94	-1.65	119	20110907
VM28-233	100	*G. ruber*	250-355	10	0.90	-1.69	106	20110907
VM28-233	104	*G. ruber*	250-355	10	1.23	-1.46	133	20110907
VM28-233	104	*G. ruber*	250-355	10	1.18	-1.61	116	20110907
VM28-233	108	*G. ruber*	250-355	10	1.09	-1.50	112	20110907
VM28-233	108	*G. ruber*	250-355	10	1.16	-1.52	97	20110907
VM28-233	112	*G. ruber*	250-355	10	1.18	-1.62	120	20110907
VM28-233	112	*G. ruber*	250-355	10	1.14	-1.60	96	20110907
VM28-233	116	*G. ruber*	250-355	10	1.39	-1.91	102	20110908
VM28-233	116	*G. ruber*	250-355	10	1.31	-2.05	111	20110908
VM28-233	120	*G. ruber*	250-355	10	1.41	-2.08	106	20110908
VM28-233	120	*G. ruber*	250-355	10	1.41	-1.99	118	20110908
VM28-233	124	*G. ruber*	250-355	10	1.42	-2.08	118	20110908

VM28-233	124	*G. ruber*	250-355	10	1.30	-2.24	100	20110908
VM28-233	128	*G. ruber*	250-355	10	1.23	-2.21	104	20110908
VM28-233	128	*G. ruber*	250-355	10	1.18	-2.12	106	20110908
VM28-233	132	*G. ruber*	250-355	10	1.26	-2.00	106	20110908
VM28-233	132	*G. ruber*	250-355	10	1.38	-1.95	113	20110908
VM28-233	136	*G. ruber*	250-355	10	1.34	-2.07	112	20110908
VM28-233	136	*G. ruber*	250-355	10	1.40	-2.09	112	20110908
VM28-233	140	*G. ruber*	250-355	10	1.09	-2.12	123	20110908
VM28-233	140	*G. ruber*	250-355	10	1.32	-2.19	112	20110908
VM28-233	144	*G. ruber*	250-355	10	1.30	-2.05	118	20110908
VM28-233	144	*G. ruber*	250-355	10	1.37	-2.14	128	20110908
VM28-233	148	*G. ruber*	250-355	10	1.23	-2.14	118	20110908
VM28-233	148	*G. ruber*	250-355	10	1.37	-2.10	104	20110908
VM28-233	152	*G. ruber*	250-355	10	1.03	-1.95	107	20110908
VM28-233	152	*G. ruber*	250-355	10	1.08	-2.16	107	20110908
VM28-233	156	*G. ruber*	250-355	10	0.83	-2.38	109	20110908

VM28-233	156	*G. ruber*	250-355	10	1.12	-2.17	100	20110908
VM28-233	32	*P. obliquiloculata*	355-425	1	1.68	0.59	51	20110620
VM28-233	32	*P. obliquiloculata*	355-425	1	1.24	0.31	35	20110620
VM28-233	32	*P. obliquiloculata*	355-425	1	0.40	-0.02	31	20110620
VM28-233	36	*P. obliquiloculata*	355-425	1	1.06	-0.23	48	20110620
VM28-233	36	*P. obliquiloculata*	355-425	1	1.12	-0.06	41	20110620
VM28-233	36	*P. obliquiloculata*	355-425	1	1.03	-0.06	40	20110620
VM28-233	1	*P. obliquiloculata*	355-425	1	0.99	-1.68	39	20110627
VM28-233	1	*P. obliquiloculata*	355-425	1	1.12	-1.19	55	20110627
VM28-233	1	*P. obliquiloculata*	355-425	1	1.39	-1.52	61	20110627
VM28-233	1	*P. obliquiloculata*	355-425	1	1.16	-1.80	41	20110627
VM28-233	1	*P. obliquiloculata*	355-425	1	1.27	-1.29	56	20110627
VM28-233	1	*P. obliquiloculata*	355-425	1	1.16	-1.39	37	20110628
VM28-233	1	*P. obliquiloculata*	355-425	1	1.03	-0.36	50	20110628
VM28-233	1	*P. obliquiloculata*	355-425	1	1.13	-1.31	46	20110628
VM28-233	1	*P. obliquiloculata*	355-425	1	0.99	-0.84	61	20110628

VM28-233	32	*P. obliquiloculata*	355-425	1	1.25	0.06	43		20111121
VM28-233	32	*P. obliquiloculata*	355-425	1	1.09	0.01	43		20111121
VM28-233	36	*P. obliquiloculata*	355-425	1	1.04	0.23	31		20111121
VM28-233	36	*P. obliquiloculata*	355-425	1	1.42	0.05	42		20111121
VM28-234	0	*G. tumida*	425-500	1	1.60	-0.96	124	LH	20090212
VM28-234	0	*G. tumida*	425-500	1	1.44	-1.75	83	LH	20090212
VM28-234	0	*G. tumida*	425-500	1	1.96	-1.11	98	LH	20090212
VM28-234	0	*G. tumida*	425-500	1	1.71	-0.99	141	LH	20101018
VM28-234	0	*G. tumida*	425-500	1	1.96	-0.57	120	LH	20101018
VM28-234	2	*G. tumida*	425-500	1	1.99	-0.90	95	LH	20100717
VM28-234	2	*G. tumida*	425-500	1	1.77	-1.37	167	LH	20100717
VM28-234	2	*G. tumida*	425-500	1	2.00	-0.94	124	LH	20100717
VM28-234	2	*G. tumida*	425-500	1	2.00	-0.84	144	LH	20101018
VM28-234	2	*G. tumida*	425-500	1	1.78	-1.06	135	LH	20101018
VM28-234	2	*G. tumida*	425-500	1	2.27	-1.17	117	LH	20101018
VM28-234	2	*G. tumida*	425-500	1	1.68	-0.76	148	LH	20110819

VM28-234	2	*G. tumida*	425-500	1	2.07	-1.12	145	LH	20110819
VM28-234	2	*G. tumida*	425-500	1	1.82	-0.95	143	LH	20110819
VM28-234	2	*G. tumida*	425-500	1	1.95	-1.07	145	LH	20110819
VM28-234	2	*G. tumida*	425-500	1	1.66	-1.15	143	LH	20110819
VM28-234	2	*G. tumida*	425-500	1	1.50	-0.75	91	LH	20110819
VM28-234	4	*G. tumida*	425-500	1	2.19	-0.74	127	LH	20090212
VM28-234	4	*G. tumida*	425-500	1	1.98	-0.86	136	LH	20090212
VM28-234	4	*G. tumida*	425-500	1	1.52	-0.94	124	LH	20090212
VM28-234	4	*G. tumida*	425-500	1	1.80	-1.04	110	LH	20101018
VM28-234	4	*G. tumida*	425-500	1	2.03	-1.64	111	LH	20101018
VM28-234	6	*G. tumida*	425-500	1	1.87	-0.88	129	LH	20100717
VM28-234	6	*G. tumida*	425-500	1	1.91	-1.38	124	LH	20100717
VM28-234	6	*G. tumida*	425-500	1	1.93	-0.73	149	LH	20100717
VM28-234	6	*G. tumida*	425-500	1	1.88	-0.86	111	LH	20101018
VM28-234	6	*G. tumida*	425-500	1	1.89	-0.81	136	LH	20101018
VM28-234	6	*G. tumida*	425-500	1	1.85	-1.18	123	LH	20101018

VM28-234	8	*G. tumida*	425-500	1	2.04	-0.79	166	LH	20090212
VM28-234	10	*G. tumida*	425-500	1	1.76	-1.09	115	LH	20100717
VM28-234	10	*G. tumida*	425-500	1	1.95	-1.59	145	LH	20100717
VM28-234	10	*G. tumida*	425-500	1	1.61	-1.41	121	LH	20100717
VM28-234	10	*G. tumida*	425-500	1	1.75	-1.26	133	LH	20101018
VM28-234	10	*G. tumida*	425-500	1	1.81	-1.00	134	LH	20101018
VM28-234	10	*G. tumida*	425-500	1	1.82	-0.78	133	LH	20101018
VM28-234	10	*G. tumida*	425-500	1	1.75	-0.57	140	LH	20110819
VM28-234	10	*G. tumida*	425-500	1	2.02	-0.82	122	LH	20110819
VM28-234	10	*G. tumida*	425-500	1	1.94	-1.48	148	LH	20110819
VM28-234	10	*G. tumida*	425-500	1	1.74	-1.32	94	LH	20110819
VM28-234	10	*G. tumida*	425-500	1	1.90	-0.99	122	LH	20110819
VM28-234	10	*G. tumida*	425-500	1	1.88	-0.87	127	LH	20110819
VM28-234	10	*G. tumida*	425-500	1	1.77	-1.07	159	LH	20110819
VM28-234	10	*G. tumida*	425-500	1	1.85	-1.31	134	LH	20110819
VM28-234	10	*G. tumida*	425-500	1	1.74	-0.86	117	LH	20110819

VM28-234	12	*G. tumida*	425-500	1	2.08	-0.22	143	LH	20090212
VM28-234	12	*G. tumida*	425-500	1	1.99	-1.18	113	LH	20090212
VM28-234	12	*G. tumida*	425-500	1	1.98	-1.38	142	LH	20090212
VM28-234	12	*G. tumida*	425-500	1	1.86	-1.29	123	LH	20101018
VM28-234	14	*G. tumida*	425-500	1	2.38	-1.45	135	LH	20100717
VM28-234	16	*G. tumida*	425-500	1	2.05	-1.28	127	LH	20090212
VM28-234	16	*G. tumida*	425-500	1	1.95	-2.22	112	LH	20090212
VM28-234	16	*G. tumida*	425-500	1	1.78	-0.88	102	LH	20090212
VM28-234	16	*G. tumida*	425-500	1	2.02	-1.36	147	LH	20101018
VM28-234	18	*G. tumida*	425-500	1	2.31	-1.57	116		20100717
VM28-234	18	*G. tumida*	425-500	1	1.93	-1.07	149		20100717
VM28-234	18	*G. tumida*	425-500	1	1.98	-1.17	135		20100717
VM28-234	18	*G. tumida*	425-500	1	2.04	-1.45	116		20101018
VM28-234	18	*G. tumida*	425-500	1	1.88	-1.02	166		20101018
VM28-234	18	*G. tumida*	425-500	1	2.16	-1.03	131		20101018
VM28-234	20	*G. tumida*	425-500	1	1.99	-1.04	111		20090212

VM28-234	20	*G. tumida*	425-500	1	1.75	-1.48	144	20090212
VM28-234	20	*G. tumida*	425-500	1	1.94	-1.08	123	20090212
VM28-234	20	*G. tumida*	425-500	1	1.91	-0.38	165	20101018
VM28-234	20	*G. tumida*	425-500	1	1.88	-1.24	150	20101018
VM28-234	20	*G. tumida*	425-500	1	2.15	-1.00	106	20101018
VM28-234	20	*G. tumida*	425-500	1	1.89	-1.21	157	20110819
VM28-234	20	*G. tumida*	425-500	1	2.11	-1.31	179	20110819
VM28-234	20	*G. tumida*	425-500	1	2.00	-1.39	156	20110819
VM28-234	20	*G. tumida*	425-500	1	2.18	-1.12	168	20110819
VM28-234	22	*G. tumida*	425-500	1	2.04	-1.32	134	20100717
VM28-234	22	*G. tumida*	425-500	1	2.02	-1.00	137	20100717
VM28-234	22	*G. tumida*	425-500	1	1.88	-1.13	160	20100717
VM28-234	22	*G. tumida*	425-500	1	2.02	-1.33	117	20101018
VM28-234	24	*G. tumida*	425-500	1	1.40	-1.61	143	20090212
VM28-234	26	*G. tumida*	425-500	1	1.91	-1.72	100	20100717
VM28-234	26	*G. tumida*	425-500	1	1.76	-1.17	173	20100717

VM28-234	28	*G. tumida*	425-500	1	1.91	-0.57	124	20090212
VM28-234	28	*G. tumida*	425-500	1	1.53	-0.50	146	20090212
VM28-234	30	*G. tumida*	425-500	1	1.82	-1.01	160	20100717
VM28-234	30	*G. tumida*	425-500	1	1.93	-1.36	144	20100717
VM28-234	30	*G. tumida*	425-500	1	1.63	-0.97	167	20100717
VM28-234	32	*G. tumida*	425-500	1	1.96	-0.71	148	20090212
VM28-234	32	*G. tumida*	425-500	1	1.87	-0.94	144	20090212
VM28-234	32	*G. tumida*	425-500	1	1.31	-1.03	137	20090212
VM28-234	36	*G. tumida*	425-500	1	1.72	-0.47	113	20090212
VM28-234	38	*G. tumida*	425-500	1	1.67	-0.75	169	20100717
VM28-234	40	*G. tumida*	425-500	1	1.24	-0.80	87	20090213
VM28-234	48	*G. tumida*	425-500	1	1.49	-0.51	65	20090213
VM28-234	48	*G. tumida*	425-500	1	1.32	-0.82	78	20090213
VM28-234	48	*G. tumida*	425-500	1	0.70	-1.45	42	20090213
VM28-234	50	*G. tumida*	425-500	1	1.66	-0.52	134	20100717
VM28-234	50	*G. tumida*	425-500	1	1.45	-0.71	126	20100717

VM28-234	52	*G. tumida*	425-500	1	1.59	-0.60	133	20090213
VM28-234	52	*G. tumida*	425-500	1	1.40	-0.30	96	20090217
VM28-234	52	*G. tumida*	425-500	1	1.36	-0.71	85	20090217
VM28-234	56	*G. tumida*	425-500	1	1.52	-0.20	95	20090217
VM28-234	56	*G. tumida*	425-500	1	1.62	-0.47	98	20090217
VM28-234	56	*G. tumida*	425-500	1	1.50	-0.30	81	20090217
VM28-234	60	*G. tumida*	425-500	1	1.40	0.00	104	20090217
VM28-234	60	*G. tumida*	425-500	1	1.77	-0.58	106	20090217
VM28-234	64	*G. tumida*	425-500	1	1.69	-1.05	192	20110819
VM28-234	78	*G. tumida*	425-500	1	1.67	0.69	119	20100730
VM28-234	86	*G. tumida*	425-500	1	1.68	0.56	104	20100730
VM28-234	92	*G. tumida*	425-500	1	1.95	0.74	124	20100730
VM28-234	92	*G. tumida*	425-500	1	1.94	0.77	124	20100730
VM28-234	92	*G. tumida*	425-500	1	1.89	-0.15	167	20100730
VM28-234	92	*G. tumida*	425-500	1	1.72	0.93	141	20110819
VM28-234	92	*G. tumida*	425-500	1	1.51	1.10	104	20110819

VM28-234	94	*G. tumida*	425-500	1	1.77	0.88	135	20100730
VM28-234	96	*G. tumida*	425-500	1	1.97	0.78	124	20100730
VM28-234	96	*G. tumida*	425-500	1	1.81	0.78	148	20100730
VM28-234	96	*G. tumida*	425-500	1	1.91	0.15	135	20100730
VM28-234	96	*G. tumida*	425-500	1	2.03	0.42	137	20110824
VM28-234	98	*G. tumida*	425-500	1	1.78	0.31	117	20100730
VM28-234	98	*G. tumida*	425-500	1	2.14	0.56	124	20100730
VM28-234	100	*G. tumida*	425-500	1	2.12	0.04	107	20091009
VM28-234	100	*G. tumida*	425-500	1	2.09	0.25	109	20091009
VM28-234	100	*G. tumida*	425-500	1	2.26	0.97	109	20091009
VM28-234	100	*G. tumida*	425-500	1	1.76	1.15	119	20091009
VM28-234	104	*G. tumida*	425-500	1	2.18	-0.01	161	20100730
VM28-234	106	*G. tumida*	425-500	1	2.23	-0.03	131	20100730
VM28-234	106	*G. tumida*	425-500	1	2.00	1.00	116	20100730
VM28-234	106	*G. tumida*	425-500	1	2.02	0.24	148	20100730
VM28-234	108	*G. tumida*	425-500	1	2.00	0.40	126	20100730

VM28-234	108	*G. tumida*	425-500	1	2.12	0.63	80		20100730
VM28-234	108	*G. tumida*	425-500	1	2.04	0.07	123		20100730
VM28-234	110	*G. tumida*	425-500	1	2.02	0.35	116		20100730
VM28-234	110	*G. tumida*	425-500	1	1.92	0.53	144		20100730
VM28-234	110	*G. tumida*	425-500	1	1.84	1.12	102		20100730
VM28-234	112	*G. tumida*	425-500	1	1.94	1.21	102		20100730
VM28-234	112	*G. tumida*	425-500	1	2.00	0.58	109		20100730
VM28-234	114	*G. tumida*	425-500	1	1.88	0.66	127		20100730
VM28-234	114	*G. tumida*	425-500	1	2.12	0.07	132		20100731
VM28-234	114	*G. tumida*	425-500	1	2.14	0.02	89		20100731
VM28-234	116	*G. tumida*	425-500	1	2.24	0.97	105	LGM	20100731
VM28-234	116	*G. tumida*	425-500	1	2.15	0.15	103	LGM	20100731
VM28-234	118	*G. tumida*	425-500	1	1.93	0.82	94	LGM	20100731
VM28-234	118	*G. tumida*	425-500	1	2.08	0.74	123	LGM	20100731
VM28-234	118	*G. tumida*	425-500	1	2.03	0.76	130	LGM	20100731
VM28-234	120	*G. tumida*	425-500	1	2.07	0.31	107	LGM	20091009

VM28-234	120	*G. tumida*	425-500	1	2.10	0.59	131	LGM	20091009
VM28-234	120	*G. tumida*	425-500	1	2.01	0.67	135	LGM	20091009
VM28-234	120	*G. tumida*	425-500	1	1.78	1.50	109	LGM	20091009
VM28-234	120	*G. tumida*	425-500	1	1.91	0.68	145	LGM	20091009
VM28-234	120	*G. tumida*	425-500	1	2.07	1.40	113	LGM	20110824
VM28-234	122	*G. tumida*	425-500	1	2.34	-0.20	105	LGM	20100731
VM28-234	122	*G. tumida*	425-500	1	1.84	1.20	135	LGM	20100731
VM28-234	122	*G. tumida*	425-500	1	2.13	0.08	151	LGM	20100731
VM28-234	124	*G. tumida*	425-500	1	2.11	1.06	102	LGM	20100731
VM28-234	124	*G. tumida*	425-500	1	1.98	0.30	92	LGM	20100731
VM28-234	124	*G. tumida*	425-500	1	2.03	-0.22	120	LGM	20100731
VM28-234	128	*G. tumida*	425-500	1	2.07	0.44	132	LGM	20100731
VM28-234	136	*G. tumida*	425-500	1	1.86	-0.73	119	LGM	20100731
VM28-234	146	*G. tumida*	425-500	1	2.03	-0.20	112	LGM	20100731
VM28-234	146	*G. tumida*	425-500	1	2.16	0.07	132	LGM	20100731
VM28-234	146	*G. tumida*	425-500	1	1.88	1.38	107	LGM	20100731

VM28-234	146	*G. tumida*	425-500	1	1.94	0.75	89	LGM	20110824
VM28-234	146	*G. tumida*	425-500	1	1.94	1.05	116	LGM	20110824
VM28-234	146	*G. tumida*	425-500	1	2.09	0.94	107	LGM	20110824
VM28-234	146	*G. tumida*	425-500	1	1.94	0.56	85	LGM	20110824
VM28-234	146	*G. tumida*	425-500	1	2.08	0.08	103	LGM	20110824
VM28-234	148	*G. tumida*	425-500	1	2.09	0.32	141	LGM	20100731
VM28-234	150	*G. tumida*	425-500	1	1.84	0.85	82	LGM	20100731
VM28-234	150	*G. tumida*	425-500	1	1.99	0.39	146	LGM	20100731
VM28-234	150	*G. tumida*	425-500	1	2.42	-0.03	135	LGM	20100731
VM28-234	152	*G. tumida*	425-500	1	2.09	1.10	98	LGM	20100731
VM28-234	156	*G. tumida*	425-500	1	2.06	0.03	107	LGM	20100731
VM28-234	156	*G. tumida*	425-500	1	1.91	1.03	158	LGM	20100731
VM28-234	158	*G. tumida*	425-500	1	2.09	0.27	100	LGM	20100731
VM28-234	158	*G. tumida*	425-500	1	2.22	0.81	103	LGM	20100731
VM28-234	160	*G. tumida*	425-500	1	2.00	0.81	113	LGM	20091009
VM28-234	160	*G. tumida*	425-500	1	2.41	0.08	120	LGM	20091009

VM28-234	160	*G. tumida*	425-500	1	1.94	0.32	133	LGM	20091009
VM28-234	160	*G. tumida*	425-500	1	2.14	0.58	145	LGM	20091009
VM28-234	160	*G. tumida*	425-500	1	1.74	0.67	146	LGM	20091009
VM28-234	160	*G. tumida*	425-500	1	2.11	0.37	175	LGM	20110824
VM28-234	160	*G. tumida*	425-500	1	1.83	0.57	92	LGM	20110824
VM28-234	162	*G. tumida*	425-500	1	1.75	0.41	124	LGM	20100731
VM28-234	162	*G. tumida*	425-500	1	1.99	-0.04	111	LGM	20100731
VM28-234	162	*G. tumida*	425-500	1	1.90	0.44	96	LGM	20100731
VM28-234	180	*G. tumida*	425-500	1	1.98	0.65	102		20100731
VM28-234	180	*G. tumida*	425-500	1	1.58	1.37	100		20100731
VM28-234	180	*G. tumida*	425-500	1	1.70	0.09	76		20100731
VM28-234	182	*G. tumida*	425-500	1	2.22	0.68	151		20100731
VM28-234	186	*G. tumida*	425-500	1	2.72	-0.14	141		20100731
VM28-234	186	*G. tumida*	425-500	1	2.11	0.92	84		20100731
VM28-234	186	*G. tumida*	425-500	1	2.06	-0.07	123		20100731
VM28-234	188	*G. tumida*	425-500	1	1.80	0.24	144		20100731

VM28-234	188	*G. tumida*	425-500	1	2.19	-0.10	156	20100803
VM28-234	188	*G. tumida*	425-500	1	1.91	0.17	145	20100803
VM28-234	190	*G. tumida*	425-500	1	2.21	0.32	131	20100803
VM28-234	190	*G. tumida*	425-500	1	2.17	0.31	133	20100803
VM28-234	190	*G. tumida*	425-500	1	1.97	0.87	103	20110824
VM28-234	190	*G. tumida*	425-500	1	2.11	0.18	90	20110824
VM28-234	190	*G. tumida*	425-500	1	2.28	0.41	107	20110824
VM28-234	190	*G. tumida*	425-500	1	2.19	0.12	115	20110824
VM28-234	190	*G. tumida*	425-500	1	2.24	-0.30	92	20110824
VM28-234	190	*G. tumida*	425-500	1	1.69	0.16	114	20110824
VM28-234	190	*G. tumida*	425-500	1	1.80	0.27	133	20110824
VM28-234	192	*G. tumida*	425-500	1	2.00	0.28	115	20100803
VM28-234	192	*G. tumida*	425-500	1	2.25	-0.02	135	20100803
VM28-234	192	*G. tumida*	425-500	1	2.16	0.47	111	20100803
VM28-234	192	*G. tumida*	425-500	1	2.48	-0.24	112	20110824
VM28-234	192	*G. tumida*	425-500	1	2.35	-0.09	103	20110824

VM28-234	194	*G. tumida*	425-500	1	2.21	0.01	82	20100803
VM28-234	194	*G. tumida*	425-500	1	2.51	-0.29	101	20100803
VM28-234	196	*G. tumida*	425-500	1	2.05	0.58	96	20100803
VM28-234	196	*G. tumida*	425-500	1	2.42	0.13	117	20100803
VM28-234	198	*G. tumida*	425-500	1	2.21	0.03	109	20100803
VM28-234	198	*G. tumida*	425-500	1	2.11	0.12	138	20100803
VM28-234	200	*G. tumida*	425-500	1	2.64	0.35	130	20100803
VM28-234	200	*G. tumida*	425-500	1	1.54	0.32	148	20100803
VM28-234	202	*G. tumida*	425-500	1	2.04	0.96	122	20100803
VM28-234	202	*G. tumida*	425-500	1	1.91	0.69	103	20100803
VM28-234	210	*G. tumida*	425-500	1	2.32	-0.13	126	20100803
VM28-234	210	*G. tumida*	425-500	1	2.06	0.41	134	20100803
VM28-234	212	*G. tumida*	425-500	1	2.29	-0.17	137	20100803
VM28-234	218	*G. tumida*	425-500	1	2.27	-0.33	124	20100803
VM28-234	218	*G. tumida*	425-500	1	2.16	0.18	146	20100803
VM28-234	218	*G. tumida*	425-500	1	1.98	0.35	129	20100803

VM28-234	220	*G. tumida*	425-500	1	2.18	0.69	130	20100811
VM28-234	220	*G. tumida*	425-500	1	2.05	-0.09	123	20100811
VM28-234	220	*G. tumida*	425-500	1	2.13	-0.06	132	20100811
VM28-234	222	*G. tumida*	425-500	1	2.32	0.26	109	20100811
VM28-234	222	*G. tumida*	425-500	1	1.97	0.49	98	20100811
VM28-234	224	*G. tumida*	425-500	1	2.32	-0.55	144	20100811
VM28-234	224	*G. tumida*	425-500	1	2.28	0.04	118	20100811
VM28-234	226	*G. tumida*	425-500	1	2.05	-0.51	144	20100811
VM28-234	226	*G. tumida*	425-500	1	2.18	-0.04	126	20100811
VM28-234	226	*G. tumida*	425-500	1	2.12	-0.06	121	20100811
VM28-234	228	*G. tumida*	425-500	1	2.02	-0.15	104	20100811
VM28-234	228	*G. tumida*	425-500	1	2.31	0.59	116	20100811
VM28-234	228	*G. tumida*	425-500	1	2.12	0.01	92	20100811
VM28-234	230	*G. tumida*	425-500	1	2.22	0.01	107	20100811
VM28-234	230	*G. tumida*	425-500	1	2.27	-0.12	107	20100811
VM28-234	230	*G. tumida*	425-500	1	1.90	-0.63	93	20100811

VM28-234	234	*G. tumida*	425-500	1	2.28	-0.55	152	20100811
VM28-234	234	*G. tumida*	425-500	1	2.23	0.33	123	20100811
VM28-234	234	*G. tumida*	425-500	1	1.99	0.17	124	20100811
VM28-234	236	*G. tumida*	425-500	1	2.37	0.22	98	20100811
VM28-234	242	*G. tumida*	425-500	1	1.69	-0.26	168	20100811
VM28-234	246	*G. tumida*	425-500	1	2.19	0.80	116	20100813
VM28-234	246	*G. tumida*	425-500	1	2.28	0.30	118	20100813
VM28-234	246	*G. tumida*	425-500	1	2.37	-0.37	171	20100813
VM28-234	248	*G. tumida*	425-500	1	2.12	-0.31	105	20100813
VM28-234	248	*G. tumida*	425-500	1	1.99	-0.06	136	20100813
VM28-234	248	*G. tumida*	425-500	1	1.83	-0.41	149	20100813
VM28-234	250	*G. tumida*	425-500	1	2.17	0.24	127	20100813
VM28-234	250	*G. tumida*	425-500	1	2.16	0.04	115	20100813
VM28-234	250	*G. tumida*	425-500	1	2.07	0.09	117	20100813
VM28-234	252	*G. tumida*	425-500	1	2.06	-0.39	97	20100813
VM28-234	252	*G. tumida*	425-500	1	2.08	0.42	95	20100813

VM28-234	252	*G. tumida*	425-500	1	2.17	0.30	95	20100813
VM28-234	254	*G. tumida*	425-500	1	2.15	-0.20	128	20100813
VM28-234	254	*G. tumida*	425-500	1	1.98	0.30	113	20100813
VM28-234	254	*G. tumida*	425-500	1	2.41	-0.21	138	20100813
VM28-234	256	*G. tumida*	425-500	1	2.20	0.35	89	20100813
VM28-234	258	*G. tumida*	425-500	1	1.99	-0.29	127	20100813
VM28-234	260	*G. tumida*	425-500	1	1.99	-0.24	156	20100813
VM28-234	260	*G. tumida*	425-500	1	1.95	0.76	111	20100813
VM28-234	260	*G. tumida*	425-500	1	2.48	-0.63	115	20100813
VM28-234	262	*G. tumida*	425-500	1	2.26	0.23	112	20100813
VM28-234	262	*G. tumida*	425-500	1	2.07	-0.29	106	20100813
VM28-234	262	*G. tumida*	425-500	1	2.13	0.00	101	20100813
VM28-234	264	*G. tumida*	425-500	1	1.88	-0.28	134	20100813
VM28-234	264	*G. tumida*	425-500	1	2.03	0.06	130	20100821
VM28-234	264	*G. tumida*	425-500	1	1.74	-0.34	104	20100821
VM28-234	274	*G. tumida*	425-500	1	2.05	-0.20	92	20100821

VM28-234	274	*G. tumida*	425-500	1	1.99	-0.22	113	20100821
VM28-234	274	*G. tumida*	425-500	1	1.87	-0.09	164	20100821
VM28-234	276	*G. tumida*	425-500	1	1.82	0.89	115	20100821
VM28-234	276	*G. tumida*	425-500	1	1.69	-0.18	125	20100821
VM28-234	276	*G. tumida*	425-500	1	1.74	-0.19	141	20100821
VM28-234	280	*G. tumida*	425-500	1	2.04	-0.13	164	20100821
VM28-234	280	*G. tumida*	425-500	1	2.22	0.01	132	20100821
VM28-234	280	*G. tumida*	425-500	1	2.29	-0.63	117	20100821
VM28-234	282	*G. tumida*	425-500	1	2.12	-0.47	124	20100821
VM28-234	282	*G. tumida*	425-500	1	2.40	-0.39	87	20100821
VM28-234	282	*G. tumida*	425-500	1	2.13	-0.19	132	20100821
VM28-234	284	*G. tumida*	425-500	1	1.99	1.72	77	20100821
VM28-234	284	*G. tumida*	425-500	1	1.99	-0.16	111	20100821
VM28-234	284	*G. tumida*	425-500	1	1.88	-0.10	138	20100821
VM28-234	286	*G. tumida*	425-500	1	2.44	-0.01	135	20100821
VM28-234	286	*G. tumida*	425-500	1	2.19	0.04	134	20100821

VM28-234	286	*G. tumida*	425-500	1	1.90	-0.58	107	20100821
VM28-234	288	*G. tumida*	425-500	1	2.19	0.28	118	20100821
VM28-234	288	*G. tumida*	425-500	1	2.44	-0.60	157	20100821
VM28-234	288	*G. tumida*	425-500	1	1.66	-0.50	98	20100821
VM28-234	294	*G. tumida*	425-500	1	1.95	0.06	110	20100821
VM28-234	296	*G. tumida*	425-500	1	2.17	-0.14	151	20100821
VM28-234	296	*G. tumida*	425-500	1	2.22	-0.28	105	20100821
VM28-234	296	*G. tumida*	425-500	1	1.97	-0.14	120	20100821
VM28-234	298	*G. tumida*	425-500	1	2.09	-0.33	86	20100821
VM28-234	298	*G. tumida*	425-500	1	2.06	0.10	100	20100821
VM28-234	298	*G. tumida*	425-500	1	2.10	0.00	88	20100821
VM28-234	300	*G. tumida*	425-500	1	1.97	-0.09	149	20100821
VM28-234	300	*G. tumida*	425-500	1	1.98	-0.14	121	20100821
VM28-234	300	*G. tumida*	425-500	1	2.22	0.70	130	20100821
VM28-234	302	*G. tumida*	425-500	1	1.99	-0.08	136	20100821
VM28-234	302	*G. tumida*	425-500	1	1.79	0.16	122	20100821

VM28-234	302	*G. tumida*	425-500	1	2.10	0.07	145	20100821
VM28-234	304	*G. tumida*	425-500	1	1.96	-0.30	150	20100821
VM28-234	304	*G. tumida*	425-500	1	2.00	-0.57	104	20100821
VM28-234	306	*G. tumida*	425-500	1	1.99	-0.16	150	20100818
VM28-234	306	*G. tumida*	425-500	1	2.13	-0.35	85	20100818
VM28-234	306	*G. tumida*	425-500	1	2.03	-0.10	102	20100818
VM28-234	308	*G. tumida*	425-500	1	1.89	0.48	111	20100818
VM28-234	308	*G. tumida*	425-500	1	2.14	-0.25	103	20100818
VM28-234	308	*G. tumida*	425-500	1	2.08	0.49	143	20100818
VM28-234	310	*G. tumida*	425-500	1	2.02	0.17	96	20100818
VM28-234	310	*G. tumida*	425-500	1	2.04	-0.49	96	20100818
VM28-234	310	*G. tumida*	425-500	1	1.82	0.08	136	20100818
VM28-234	312	*G. tumida*	425-500	1	1.80	0.04	95	20100818
VM28-234	312	*G. tumida*	425-500	1	1.84	0.20	110	20100818
VM28-234	314	*G. tumida*	425-500	1	1.98	-0.22	145	20100818
VM28-234	314	*G. tumida*	425-500	1	1.94	-0.21	134	20100818

VM28-234	314	*G. tumida*	425-500	1	1.93	-0.65	129	20100818
VM28-234	316	*G. tumida*	425-500	1	1.75	-0.20	118	20100818
VM28-234	316	*G. tumida*	425-500	1	2.08	-0.29	86	20100818
VM28-234	316	*G. tumida*	425-500	1	2.02	-0.53	91	20100818
VM28-234	318	*G. tumida*	425-500	1	1.85	-0.19	139	20100818
VM28-234	318	*G. tumida*	425-500	1	1.70	-0.42	136	20100818
VM28-234	318	*G. tumida*	425-500	1	1.90	-0.38	87	20100818
VM28-234	320	*G. tumida*	425-500	1	1.81	-0.07	132	20100818
VM28-234	328	*G. tumida*	425-500	1	2.17	0.42	129	20100818
VM28-234	328	*G. tumida*	425-500	1	2.13	-0.20	81	20100818
VM28-234	328	*G. tumida*	425-500	1	1.82	-0.60	102	20100818
VM28-234	330	*G. tumida*	425-500	1	2.25	-0.39	112	20100824
VM28-234	330	*G. tumida*	425-500	1	2.18	-0.06	100	20100824
VM28-234	330	*G. tumida*	425-500	1	1.95	-0.34	84	20100824
VM28-234	332	*G. tumida*	425-500	1	2.30	0.28	98	20100824
VM28-234	332	*G. tumida*	425-500	1	2.37	-0.50	153	20100824

VM28-234	332	*G. tumida*	425-500	1	2.07	0.58	94	20100826
VM28-234	334	*G. tumida*	425-500	1	2.05	-0.08	141	20100824
VM28-234	334	*G. tumida*	425-500	1	1.98	0.10	134	20100824
VM28-234	334	*G. tumida*	425-500	1	2.21	-0.43	97	20100824
VM28-234	336	*G. tumida*	425-500	1	1.68	-0.40	99	20100824
VM28-234	336	*G. tumida*	425-500	1	2.04	-0.75	120	20100824
VM28-234	336	*G. tumida*	425-500	1	1.68	-0.35	113	20100824
VM28-234	338	*G. tumida*	425-500	1	1.77	-0.49	116	20100824
VM28-234	338	*G. tumida*	425-500	1	1.91	0.17	139	20100824
VM28-234	338	*G. tumida*	425-500	1	1.93	0.34	131	20100824
VM28-234	340	*G. tumida*	425-500	1	2.04	0.70	117	20100824
VM28-234	340	*G. tumida*	425-500	1	2.13	-0.39	116	20100824
VM28-234	340	*G. tumida*	425-500	1	1.77	-0.31	139	20100824
VM28-234	342	*G. tumida*	425-500	1	1.93	0.07	115	20100824
VM28-234	342	*G. tumida*	425-500	1	1.90	-0.60	152	20100824
VM28-234	342	*G. tumida*	425-500	1	1.72	-0.03	151	20100824

VM28-234	344	*G. tumida*	425-500	1	1.87	0.02	114	20100824
VM28-234	344	*G. tumida*	425-500	1	1.75	-0.07	130	20100824
VM28-234	344	*G. tumida*	425-500	1	1.91	-0.70	123	20100824
VM28-234	346	*G. tumida*	425-500	1	2.00	-0.65	162	20100825
VM28-234	346	*G. tumida*	425-500	1	1.97	-0.03	111	20100825
VM28-234	346	*G. tumida*	425-500	1	1.73	-0.31	117	20100825
VM28-234	348	*G. tumida*	425-500	1	1.95	0.11	88	20100825
VM28-234	348	*G. tumida*	425-500	1	1.98	0.03	120	20100825
VM28-234	354	*G. tumida*	425-500	1	1.77	0.50	121	20100825
VM28-234	354	*G. tumida*	425-500	1	0.99	-0.55	86	20100825
VM28-234	356	*G. tumida*	425-500	1	1.94	-0.56	116	20100825
VM28-234	356	*G. tumida*	425-500	1	1.54	-0.14	106	20100825
VM28-234	356	*G. tumida*	425-500	1	1.85	-0.32	169	20100825
VM28-234	358	*G. tumida*	425-500	1	2.02	-0.41	120	20100825
VM28-234	358	*G. tumida*	425-500	1	1.65	0.21	122	20100825
VM28-234	358	*G. tumida*	425-500	1	1.95	-0.21	88	20100825

VM28-234	360	*G. tumida*	425-500	1	1.62	0.29	119	20100825
VM28-234	360	*G. tumida*	425-500	1	1.91	-0.50	142	20100825
VM28-234	360	*G. tumida*	425-500	1	1.37	-0.79	90	20100825
VM28-234	362	*G. tumida*	425-500	1	1.77	-0.51	123	20100825
VM28-234	362	*G. tumida*	425-500	1	1.80	0.51	109	20100825
VM28-234	362	*G. tumida*	425-500	1	1.84	-0.52	126	20100825
VM28-234	364	*G. tumida*	425-500	1	1.57	-0.38	144	20100825
VM28-234	364	*G. tumida*	425-500	1	1.70	-0.29	103	20100825
VM28-234	370	*G. tumida*	425-500	1	1.92	0.03	136	20100825
VM28-234	370	*G. tumida*	425-500	1	1.91	0.07	110	20100825
VM28-234	370	*G. tumida*	425-500	1	1.83	0.21	132	20100825
VM28-234	372	*G. tumida*	425-500	1	1.64	0.17	108	20100826
VM28-234	372	*G. tumida*	425-500	1	1.36	-0.07	142	20100826
VM28-234	372	*G. tumida*	425-500	1	1.66	0.13	108	20100826
VM28-234	374	*G. tumida*	425-500	1	1.68	-0.14	70	20100826
VM28-234	374	*G. tumida*	425-500	1	1.82	0.43	104	20100826

VM28-234	374	*G. tumida*	425-500	1	1.80	-0.34	165	20100826
VM28-234	376	*G. tumida*	425-500	1	1.75	-0.30	148	20100826
VM28-234	376	*G. tumida*	425-500	1	1.81	0.00	132	20100826
VM28-234	384	*G. tumida*	425-500	1	2.08	0.68	139	20100826
VM28-234	384	*G. tumida*	425-500	1	2.09	-0.14	124	20100826
VM28-234	384	*G. tumida*	425-500	1	1.70	0.46	92	20100826
VM28-234	386	*G. tumida*	425-500	1	1.69	0.31	88	20100826
VM28-234	386	*G. tumida*	425-500	1	2.06	-0.06	110	20100826
VM28-234	386	*G. tumida*	425-500	1	2.23	-0.22	120	20100826
VM28-234	388	*G. tumida*	425-500	1	1.86	0.10	124	20100826
VM28-234	388	*G. tumida*	425-500	1	2.04	-0.07	126	20100826
VM28-234	390	*G. tumida*	425-500	1	1.93	-0.01	145	20100826
VM28-234	390	*G. tumida*	425-500	1	1.87	0.12	110	20100826
VM28-234	390	*G. tumida*	425-500	1	2.19	-0.13	96	20100826
VM28-234	392	*G. tumida*	425-500	1	2.01	-0.25	148	20100826
VM28-234	392	*G. tumida*	425-500	1	2.28	-0.39	131	20100826

VM28-234	392	*G. tumida*	425-500	1	1.60	-0.37	116	20100826
VM28-234	396	*G. tumida*	425-500	1	1.95	-0.34	135	20100828
VM28-234	400	*G. tumida*	425-500	1	1.91	-0.10	118	20100828
VM28-234	408	*G. tumida*	425-500	1	2.25	-0.48	111	20100828
VM28-234	408	*G. tumida*	425-500	1	2.12	0.18	168	20100828
VM28-234	408	*G. tumida*	425-500	1	2.20	0.27	121	20100828
VM28-234	410	*G. tumida*	425-500	1	2.34	0.06	107	20100828
VM28-234	418	*G. tumida*	425-500	1	1.95	-0.77	108	20100828
VM28-234	418	*G. tumida*	425-500	1	2.22	-0.61	108	20100828
VM28-234	418	*G. tumida*	425-500	1	2.13	-0.56	114	20100828
VM28-234	420	*G. tumida*	425-500	1	1.92	-0.37	103	20100828
VM28-234	420	*G. tumida*	425-500	1	2.09	-0.31	89	20100828
VM28-234	420	*G. tumida*	425-500	1	1.89	-0.57	116	20100828
VM28-234	426	*G. tumida*	425-500	1	2.23	-0.09	91	20100828
VM28-234	426	*G. tumida*	425-500	1	2.32	-0.76	105	20100828
VM28-234	426	*G. tumida*	425-500	1	2.09	-0.47	97	20100828

VM28-234	428	*G. tumida*	425-500	1	2.10	-0.13	103	20100828
VM28-234	428	*G. tumida*	425-500	1	2.11	-0.36	137	20100828
VM28-234	428	*G. tumida*	425-500	1	1.98	-0.53	93	20100828
VM28-234	430	*G. tumida*	425-500	1	2.09	-0.63	91	20100828
VM28-234	430	*G. tumida*	425-500	1	1.89	-0.63	84	20100828
VM28-234	430	*G. tumida*	425-500	1	2.10	-0.66	109	20100828
VM28-234	432	*G. tumida*	425-500	1	1.91	-1.01	132	20100828
VM28-234	432	*G. tumida*	425-500	1	2.06	-0.64	103	20100828
VM28-234	434	*G. tumida*	425-500	1	1.51	-1.14	83	20100828
VM28-234	436	*G. tumida*	425-500	1	2.12	-0.39	116	20100828
VM28-234	436	*G. tumida*	425-500	1	2.19	-0.90	106	20100828
VM28-234	438	*G. tumida*	425-500	1	2.44	-1.08	99	20100828
VM28-234	438	*G. tumida*	425-500	1	2.33	-0.16	133	20100828
VM28-234	438	*G. tumida*	425-500	1	2.09	-0.52	125	20100828
VM28-234	440	*G. tumida*	425-500	1	2.11	-0.35	132	20100828
VM28-234	440	*G. tumida*	425-500	1	2.10	-0.75	132	20100828

VM28-234	440	*G. tumida*	425-500	1	2.08	-0.78	119		20100828
VM28-234	442	*G. tumida*	425-500	1	1.99	-1.06	141		20100828
VM28-234	442	*G. tumida*	425-500	1	1.92	-0.77	117		20100828
VM28-234	442	*G. tumida*	425-500	1	2.24	-0.92	167		20100828
VM28-234	444	*G. tumida*	425-500	1	2.02	-1.01	126		20100828
VM28-234	444	*G. tumida*	425-500	1	1.97	-0.62	134		20100828
VM28-234	444	*G. tumida*	425-500	1	2.07	-0.90	147		20100830
VM28-234	446	*G. tumida*	425-500	1	2.33	-0.90	119		20100830
VM28-234	446	*G. tumida*	425-500	1	2.27	-1.15	106		20100830
VM28-234	448	*G. tumida*	425-500	1	1.97	-0.89	133		20100830
VM28-234	448	*G. tumida*	425-500	1	1.80	-0.80	129		20100830
VM28-234	450	*G. tumida*	425-500	1	1.97	-0.04	103		20100830
VM28-234	0	*G. ruber*	250-355	10	1.79	-2.30	127	LH	20090217
VM28-234	0	*G. ruber*	250-355	10	1.63	-2.67	96	LH	20100409
VM28-234	2	*G. ruber*	250-355	10	1.57	-2.62	113	LH	20100409
VM28-234	2	*G. ruber*	250-355	10	1.37	-2.55	118	LH	20100721

VM28-234	4	*G. ruber*	250-355	10	1.50	-2.67	78	LH	20090217
VM28-234	6	*G. ruber*	250-355	10	1.35	-2.63	108	LH	20100721
VM28-234	8	*G. ruber*	250-355	10	1.86	-2.71	106	LH	20090217
VM28-234	10	*G. ruber*	250-355	10	1.72	-2.76	118	LH	20100721
VM28-234	12	*G. ruber*	250-355	10	1.27	-2.84	87	LH	20090217
VM28-234	14	*G. ruber*	250-355	10	1.63	-2.77	122	LH	20100721
VM28-234	16	*G. ruber*	250-355	10	1.47	-2.54	147	LH	20090217
VM28-234	18	*G. ruber*	250-355	10	1.50	-2.57	129		20100721
VM28-234	20	*G. ruber*	250-355	10	1.58	-2.53	125		20090217
VM28-234	22	*G. ruber*	250-355	10	1.55	-2.62	120		20100721
VM28-234	24	*G. ruber*	250-355	10	1.59	-2.36	127		20090217
VM28-234	26	*G. ruber*	250-355	10	1.38	-2.57	117		20100721
VM28-234	28	*G. ruber*	250-355	10	1.43	-2.47	132		20090217
VM28-234	30	*G. ruber*	250-355	10	1.51	-2.46	127		20100721
VM28-234	32	*G. ruber*	250-355	10	1.63	-2.25	141		20090217
VM28-234	34	*G. ruber*	250-355	10	1.21	-2.49	131		20100721

VM28-234	36	*G. ruber*	250-355	10	1.54	-2.23	149	20090217
VM28-234	38	*G. ruber*	250-355	10	1.34	-2.31	130	20100721
VM28-234	40	*G. ruber*	250-355	10	1.06	-2.17	119	20090217
VM28-234	42	*G. ruber*	250-355	10	1.28	-2.48	111	20100721
VM28-234	44	*G. ruber*	250-355	10	1.22	-2.16	110	20090217
VM28-234	46	*G. ruber*	250-355	10	1.17	-2.30	117	20100721
VM28-234	48	*G. ruber*	250-355	10	1.21	-2.05	140	20090217
VM28-234	50	*G. ruber*	250-355	10	0.92	-2.35	112	20100721
VM28-234	52	*G. ruber*	250-355	10	1.27	-2.07	136	20090217
VM28-234	54	*G. ruber*	250-355	10	1.04	-2.04	136	20100721
VM28-234	56	*G. ruber*	250-355	10	1.35	-1.72	142	20090217
VM28-234	58	*G. ruber*	250-355	10	1.07	-2.08	109	20100721
VM28-234	60	*G. ruber*	250-355	10	1.22	-1.66	155	20090217
VM28-234	62	*G. ruber*	250-355	10	1.39	-2.00	141	20100721
VM28-234	64	*G. ruber*	250-355	10	0.88	-1.95	124	20100721
VM28-234	66	*G. ruber*	250-355	10	1.03	-1.97	144	20100721

VM28-234	68	*G. ruber*	250-355	10	1.06	-2.20	126	20100721
VM28-234	70	*G. ruber*	250-355	10	1.22	-1.73	120	20100721
VM28-234	72	*G. ruber*	250-355	10	1.14	-1.87	104	20100721
VM28-234	74	*G. ruber*	250-355	10	1.02	-1.74	116	20100721
VM28-234	76	*G. ruber*	250-355	10	1.08	-2.09	129	20100721
VM28-234	78	*G. ruber*	250-355	10	1.16	-1.76	120	20100721
VM28-234	80	*G. ruber*	250-355	10	1.00	-1.81	105	20091009
VM28-234	82	*G. ruber*	250-355	10	1.17	-1.95	124	20100723
VM28-234	84	*G. ruber*	250-355	10	0.95	-1.93	115	20100723
VM28-234	86	*G. ruber*	250-355	10	1.09	-1.68	134	20100723
VM28-234	88	*G. ruber*	250-355	10	0.93	-1.94	127	20100723
VM28-234	90	*G. ruber*	250-355	10	0.98	-1.53	128	20100723
VM28-234	92	*G. ruber*	250-355	10	0.84	-1.41	113	20100723
VM28-234	94	*G. ruber*	250-355	10	0.80	-1.39	116	20100723
VM28-234	96	*G. ruber*	250-355	10	1.16	-1.27	132	20100723
VM28-234	98	*G. ruber*	250-355	10	1.03	-1.46	122	20100723

VM28-234	100	*G. ruber*	250-355	10	1.49	-1.16	120		20091009
VM28-234	102	*G. ruber*	250-355	10	1.22	-1.34	122		20100723
VM28-234	104	*G. ruber*	250-355	10	1.23	-1.24	120		20100723
VM28-234	106	*G. ruber*	250-355	10	1.42	-1.07	133		20100723
VM28-234	108	*G. ruber*	250-355	10	1.07	-1.10	104		20100723
VM28-234	110	*G. ruber*	250-355	10	1.33	-1.04	116		20100723
VM28-234	112	*G. ruber*	250-355	10	1.44	-1.20	131		20100723
VM28-234	114	*G. ruber*	250-355	10	1.25	-1.35	113		20100723
VM28-234	116	*G. ruber*	250-355	10	1.22	-1.49	116	LGM	20100723
VM28-234	118	*G. ruber*	250-355	10	1.07	-1.33	116	LGM	20100723
VM28-234	120	*G. ruber*	250-355	10	1.32	-1.05	107	LGM	20091009
VM28-234	122	*G. ruber*	250-355	10	1.17	-1.24	111	LGM	20100723
VM28-234	124	*G. ruber*	250-355	10	1.17	-1.27	119	LGM	20100723
VM28-234	126	*G. ruber*	250-355	10	1.39	-1.25	121	LGM	20100723
VM28-234	128	*G. ruber*	250-355	10	0.99	-1.39	123	LGM	20100723
VM28-234	132	*G. ruber*	250-355	10	1.03	-1.37	127	LGM	20100723

VM28-234	160	*G. ruber*	250-355	10	0.96	-1.28	126	LGM	20091009
VM28-234	182	*G. ruber*	250-355	10	1.02	-1.44	126		20100804
VM28-234	184	*G. ruber*	250-355	10	1.13	-1.37	120		20100804
VM28-234	186	*G. ruber*	250-355	10	1.31	-1.38	126		20100804
VM28-234	188	*G. ruber*	250-355	10	1.47	-1.42	113		20100804
VM28-234	190	*G. ruber*	250-355	10	1.23	-1.43	125		20100804
VM28-234	192	*G. ruber*	250-355	10	1.05	-1.52	120		20100804
VM28-234	194	*G. ruber*	250-355	10	1.40	-1.36	120		20100804
VM28-234	196	*G. ruber*	250-355	10	1.54	-1.54	105		20100804
VM28-234	198	*G. ruber*	250-355	10	1.38	-1.52	129		20100804
VM28-234	200	*G. ruber*	250-355	10	1.30	-1.65	127		20100804
VM28-234	202	*G. ruber*	250-355	10	1.10	-1.54	104		20100804
VM28-234	204	*G. ruber*	250-355	10	1.13	-1.67	119		20100804
VM28-234	206	*G. ruber*	250-355	10	1.12	-1.89	125		20100804
VM28-234	208	*G. ruber*	250-355	10	1.13	-1.72	125		20100804
VM28-234	210	*G. ruber*	250-355	10	1.25	-1.49	109		20100804

VM28-234	212	*G. ruber*	250-355	10	1.13	-1.68	114	20100804
VM28-234	214	*G. ruber*	250-355	10	1.26	-1.57	130	20100804
VM28-234	216	*G. ruber*	250-355	10	1.41	-1.57	121	20100804
VM28-234	218	*G. ruber*	250-355	10	1.39	-1.55	125	20100804
VM28-234	220	*G. ruber*	250-355	10	1.15	-1.48	132	20100804
VM28-234	222	*G. ruber*	250-355	10	1.46	-1.69	117	20100804
VM28-234	224	*G. ruber*	250-355	10	1.30	-1.66	130	20100804
VM28-234	226	*G. ruber*	250-355	10	1.14	-1.47	99	20100804
VM28-234	228	*G. ruber*	250-355	10	1.21	-1.67	109	20100804
VM28-234	230	*G. ruber*	250-355	10	1.33	-1.62	118	20100805
VM28-234	232	*G. ruber*	250-355	10	1.07	-1.74	124	20100805
VM28-234	234	*G. ruber*	250-355	10	1.26	-1.51	119	20100805
VM28-234	236	*G. ruber*	250-355	10	1.24	-1.77	115	20100805
VM28-234	240	*G. ruber*	250-355	10	1.32	-1.50	119	20100805
VM28-234	242	*G. ruber*	250-355	10	1.46	-1.46	118	20100805
VM28-234	244	*G. ruber*	250-355	10	1.30	-1.53	121	20100805

VM28-234	246	*G. ruber*	250-355	10	1.45	-1.59	118	20100805
VM28-234	248	*G. ruber*	250-355	10	1.51	-1.64	129	20100805
VM28-234	250	*G. ruber*	250-355	10	1.14	-1.76	125	20100805
VM28-234	252	*G. ruber*	250-355	10	1.30	-1.71	131	20100805
VM28-234	254	*G. ruber*	250-355	10	1.54	-1.55	132	20100805
VM28-234	256	*G. ruber*	250-355	10	1.49	-1.76	120	20100805
VM28-234	258	*G. ruber*	250-355	10	1.09	-1.69	114	20100805
VM28-234	260	*G. ruber*	250-355	10	1.14	-1.67	101	20100805
VM28-234	262	*G. ruber*	250-355	10	0.93	-1.74	125	20100810
VM28-234	264	*G. ruber*	250-355	10	1.17	-1.77	112	20100810
VM28-234	266	*G. ruber*	250-355	10	1.48	-1.69	125	20100810
VM28-234	268	*G. ruber*	250-355	10	1.11	-1.62	112	20100810
VM28-234	270	*G. ruber*	250-355	10	1.05	-1.75	96	20100805
VM28-234	272	*G. ruber*	250-355	10	0.90	-1.61	101	20100805
VM28-234	274	*G. ruber*	250-355	10	1.01	-1.73	147	20100805
VM28-234	276	*G. ruber*	250-355	10	1.13	-1.72	123	20100805

VM28-234	278	*G. ruber*	250-355	10	1.03	-1.70	114	20100805
VM28-234	280	*G. ruber*	250-355	10	1.09	-1.68	111	20100805
VM28-234	282	*G. ruber*	250-355	10	1.19	-1.60	129	20100805
VM28-234	284	*G. ruber*	250-355	10	1.11	-1.67	112	20100805
VM28-234	286	*G. ruber*	250-355	10	1.08	-1.70	110	20100805
VM28-234	288	*G. ruber*	250-355	10	1.38	-1.68	128	20100810
VM28-234	290	*G. ruber*	250-355	10	1.41	-1.60	129	20100810
VM28-234	292	*G. ruber*	250-355	10	1.15	-1.70	115	20100810
VM28-234	294	*G. ruber*	250-355	10	1.10	-1.57	125	20100810
VM28-234	296	*G. ruber*	250-355	10	1.52	-1.54	119	20100810
VM28-234	298	*G. ruber*	250-355	10	1.25	-1.67	125	20100810
VM28-234	300	*G. ruber*	250-355	10	1.48	-1.82	115	20100810
VM28-234	302	*G. ruber*	250-355	10	1.52	-1.65	132	20100810
VM28-234	304	*G. ruber*	250-355	10	1.41	-1.77	123	20100810
VM28-234	306	*G. ruber*	250-355	10	1.22	-1.67	118	20100810
VM28-234	308	*G. ruber*	250-355	10	0.87	-1.80	90	20100810

VM28-234	310	*G. ruber*	250-355	10	0.94	-1.88	102	20100810
VM28-234	312	*G. ruber*	250-355	10	1.11	-1.64	110	20100810
VM28-234	314	*G. ruber*	250-355	10	1.16	-1.67	121	20100810
VM28-234	316	*G. ruber*	250-355	10	1.52	-1.81	128	20100810
VM28-234	318	*G. ruber*	250-355	10	1.16	-1.89	118	20100810
VM28-234	320	*G. ruber*	250-355	10	1.18	-1.72	106	20100810
VM28-234	322	*G. ruber*	250-355	10	1.12	-1.83	104	20100810
VM28-234	324	*G. ruber*	250-355	10	0.97	-1.78	106	20100810
VM28-234	326	*G. ruber*	250-355	10	1.14	-1.65	121	20100810
VM28-234	328	*G. ruber*	250-355	10	1.44	-1.73	102	20100830
VM28-234	330	*G. ruber*	250-355	10	1.29	-1.81	117	20100830
VM28-234	332	*G. ruber*	250-355	10	0.99	-1.72	90	20100830
VM28-234	334	*G. ruber*	250-355	10	1.27	-1.73	107	20100830
VM28-234	336	*G. ruber*	250-355	10	1.03	-1.74	115	20100830
VM28-234	338	*G. ruber*	250-355	10	1.08	-1.78	94	20100830
VM28-234	340	*G. ruber*	250-355	10	1.10	-1.93	114	20100830

VM28-234	342	*G. ruber*	250-355	10	0.95	-2.09	101	20100830
VM28-234	344	*G. ruber*	250-355	10	1.22	-1.87	131	20100830
VM28-234	346	*G. ruber*	250-355	10	1.01	-1.90	109	20100830
VM28-234	348	*G. ruber*	250-355	10	0.85	-2.02	127	20100830
VM28-234	350	*G. ruber*	250-355	10	0.94	-2.04	123	20100830
VM28-234	352	*G. ruber*	250-355	10	0.84	-1.78	104	20100830
VM28-234	354	*G. ruber*	250-355	10	0.92	-1.81	97	20100830
VM28-234	356	*G. ruber*	250-355	10	0.74	-1.84	97	20100830
VM28-234	358	*G. ruber*	250-355	10	1.00	-1.85	107	20100830
VM28-234	360	*G. ruber*	250-355	10	0.89	-1.83	127	20100830
VM28-234	362	*G. ruber*	250-355	10	1.30	-1.89	133	20100901
VM28-234	364	*G. ruber*	250-355	10	0.85	-1.94	110	20100901
VM28-234	368	*G. ruber*	250-355	10	1.03	-1.69	158	20100901
VM28-234	370	*G. ruber*	250-355	10	0.96	-1.76	147	20100901
VM28-234	372	*G. ruber*	250-355	10	0.97	-1.89	153	20100901
VM28-234	374	*G. ruber*	250-355	10	0.80	-1.73	146	20100901

VM28-234	376	*G. ruber*	250-355	10	0.89	-1.59	125	20100901
VM28-234	380	*G. ruber*	250-355	10	0.96	-1.48	132	20100901
VM28-234	382	*G. ruber*	250-355	10	1.10	-1.75	141	20100901
VM28-234	384	*G. ruber*	250-355	10	0.76	-1.56	133	20100901
VM28-234	386	*G. ruber*	250-355	10	1.08	-1.45	132	20100901
VM28-234	388	*G. ruber*	250-355	10	0.96	-1.62	132	20100901
VM28-234	390	*G. ruber*	250-355	10	0.57	-1.75	113	20100901
VM28-234	392	*G. ruber*	250-355	10	1.18	-1.65	151	20100901
VM28-234	394	*G. ruber*	250-355	10	0.97	-1.56	126	20100901
VM28-234	396	*G. ruber*	250-355	10	1.13	-1.64	124	20100901
VM28-234	398	*G. ruber*	250-355	10	1.18	-1.86	161	20100901
VM28-234	400	*G. ruber*	250-355	10	1.06	-1.65	171	20100901
VM28-234	402	*G. ruber*	250-355	10	0.94	-1.76	137	20100901
VM28-234	404	*G. ruber*	250-355	10	0.94	-1.92	129	20100901
VM28-234	406	*G. ruber*	250-355	10	1.33	-1.62	131	20100901
VM28-234	408	*G. ruber*	250-355	10	1.50	-1.63	118	20100901

VM28-234	410	*G. ruber*	250-355	10	1.40	-1.72	119	20100901
VM28-234	416	*G. ruber*	250-355	10	1.07	-2.08	101	20100902
VM28-234	420	*G. ruber*	250-355	10	1.31	-1.90	113	20100902
VM28-234	422	*G. ruber*	250-355	10	0.90	-1.99	117	20100902
VM28-234	424	*G. ruber*	250-355	10	0.89	-2.03	117	20100902
VM28-234	428	*G. ruber*	250-355	10	0.98	-1.92	94	20100902
VM28-234	432	*G. ruber*	250-355	10	1.36	-2.20	99	20100902
VM28-234	434	*G. ruber*	250-355	10	1.11	-2.16	103	20100902
VM28-234	438	*G. ruber*	250-355	10	1.43	-2.11	101	20100902
VM28-234	440	*G. ruber*	250-355	10	1.52	-2.14	97	20100902
VM28-234	442	*G. ruber*	250-355	10	1.55	-2.26	119	20100902
VM28-234	444	*G. ruber*	250-355	10	1.18	-2.34	106	20100902
VM28-234	446	*G. ruber*	250-355	10	1.20	-2.20	118	20100902
VM28-234	448	*G. ruber*	250-355	10	1.09	-2.03	105	20100902
VM28-234	450	*G. ruber*	250-355	10	1.17	-2.13	107	20100902
VM28-234	0	*P. obliquiloculata*	>500	1	1.15	-1.73	114	20110624

VM28-234	0	*P. obliquiloculata*	>500	1	1.50	-1.43	102	20110624
VM28-234	0	*P. obliquiloculata*	>500	1	1.68	-1.49	136	20110624
VM28-234	0	*P. obliquiloculata*	>500	1	1.58	-1.25	105	20110624
VM28-234	0	*P. obliquiloculata*	425-500	1	1.32	-1.30	65	20110624
VM28-234	0	*P. obliquiloculata*	425-500	1	0.93	-1.42	58	20110624
VM28-234	0	*P. obliquiloculata*	425-500	1	1.25	-1.53	88	20110624
VM28-234	0	*P. obliquiloculata*	425-500	1	0.95	-1.81	32	20110624
VM28-234	0	*P. obliquiloculata*	425-500	1	1.13	-1.63	73	20110624
VM28-234	0	*P. obliquiloculata*	355-425	1	1.71	-1.17	68	20110624
VM28-234	0	*P. obliquiloculata*	355-425	1	1.44	-0.89	41	20110624
VM28-234	0	*P. obliquiloculata*	355-425	1	1.36	-1.60	42	20110624
VM28-234	0	*P. obliquiloculata*	355-425	1	0.82	-1.55	25	20110624
VM28-234	0	*P. obliquiloculata*	300-355	1	1.63	-1.13	51	20110624
VM28-234	0	*P. obliquiloculata*	300-355	1	1.42	-1.54	35	20110624
VM28-234	0	*P. obliquiloculata*	300-355	1	1.59	-1.17	33	20110624
VM28-234	0	*P. obliquiloculata*	250-300	1	0.28	-1.52	22	20110624

VM28-234	0	*P. obliquiloculata*	250-300	1	1.08	-1.19	25	20110624
VM28-234	0	*P. obliquiloculata*	250-300	1	1.30	-0.67	27	20110624
VM28-234	0	*P. obliquiloculata*	250-300	1	0.79	-1.56	29	20110624
VM28-234	0	*P. obliquiloculata*		1	0.87	-1.54	62	20110519
VM28-234	0	*P. obliquiloculata*		1	1.18	-1.75	126	20110519
VM28-234	0	*P. obliquiloculata*		1	1.43	-1.19	109	20110519
VM28-234	0	*P. obliquiloculata*		1	1.29	-1.52	100	20110519
VM28-234	0	*P. obliquiloculata*		1	1.51	-1.30	95	20110519
VM28-234	0	*P. obliquiloculata*		1	1.44	-1.10	105	20110519
VM28-234	0	*P. obliquiloculata*		1	1.19	-1.65	44	20110519
VM28-234	0	*P. obliquiloculata*		1	1.32	-1.20	62	20110519
VM28-234	0	*P. obliquiloculata*		1	1.25	-1.30	61	20110519
VM28-234	0	*P. obliquiloculata*		1	1.31	-1.16	52	20110519
VM28-234	0	*P. obliquiloculata*		1	0.76	-1.78	28	20110519
VM28-234	0	*P. obliquiloculata*		1	1.60	-1.58	54	20110519
VM28-234	0	*P. obliquiloculata*		1	0.91	-1.56	36	20110519

VM28-234	0	*P. obliquiloculata*		1	1.28	-1.42	45	20110519
VM28-234	0	*P. obliquiloculata*		1	0.93	-1.51	28	20110519
VM28-234	0	*P. obliquiloculata*		1	1.53	-0.77	37	20110519
VM28-234	0	*P. obliquiloculata*		1	1.17	-1.47	45	20110519
VM28-234	0	*P. obliquiloculata*		1	1.26	-1.02	29	20110519
VM28-234	0	*P. obliquiloculata*		1	1.34	-0.34	24	20110519
VM28-234	0	*P. obliquiloculata*		1	1.11	-1.79	21	20110519
VM28-234	0	*P. obliquiloculata*		1	0.82	0.36	17	20110519
VM28-234	0	*P. obliquiloculata*		1	0.84	-1.77	15	20110519
VM28-234	0	*P. obliquiloculata*		1	0.95	-1.94	13	20110519
VM28-234	0	*P. obliquiloculata*		1	0.86	-2.35	13	20110519
VM28-234	0	*P. obliquiloculata*		1	0.72	-1.83	11	20110519
VM28-234	0	*P. obliquiloculata*	>500	1	0.98	0.17	60	20110629
VM28-234	0	*P. obliquiloculata*	>500	1	1.62	-1.00	104	20110629
VM28-234	0	*P. obliquiloculata*	>500	1	1.44	-1.44	118	20110629
VM28-234	0	*P. obliquiloculata*	>500	1	1.18	-1.44	128	20110629

VM28-234	0	*P. obliquiloculata*	425-500	1	1.70	-1.51	69	20110629
VM28-234	0	*P. obliquiloculata*	425-500	1	1.37	-1.51	78	20110629
VM28-234	0	*P. obliquiloculata*	425-500	1	1.20	-1.71	45	20110629
VM28-234	0	*P. obliquiloculata*	425-500	1	1.40	-1.59	65	20110629
VM28-234	0	*P. obliquiloculata*	355-425	1	1.47	-1.58	52	20110629
VM28-234	0	*P. obliquiloculata*	355-425	1	0.69	-2.04	22	20110629
VM28-234	0	*P. obliquiloculata*	355-425	1	1.46	-1.45	27	20110629
VM28-234	0	*P. obliquiloculata*	355-425	1	0.79	-1.46	27	20110629
VM28-234	0	*P. obliquiloculata*	355-425	1	1.35	-1.47	48	20110629
VM28-234	0	*P. obliquiloculata*	300-355	1	1.16	-1.71	17	20110629
VM28-234	0	*P. obliquiloculata*	300-355	1	0.89	-1.14	16	20110629
VM28-234	0	*P. obliquiloculata*	300-355	1	1.31	-1.62	32	20110629
VM28-234	0	*P. obliquiloculata*	250-300	1	0.97	-2.06	14	20110629
VM28-234	0	*P. obliquiloculata*	250-300	1	1.12	-1.64	15	20110629
VM28-234	116	*P. obliquiloculata*		1	0.90	-0.74	43	20111122
VM28-234	132	*P. obliquiloculata*		1	-0.78	4.15	32	20111122

VM28-234	140	*P. obliquiloculata*		1	0.60	-0.19	25	20111122
VM28-234	146	*P. obliquiloculata*		1	1.24	0.01	36	20111122
VM28-234	150	*P. obliquiloculata*		1	1.17	0.05	36	20111122
VM28-234	154	*P. obliquiloculata*		1	0.98	0.28	27	20111122
VM28-234	158	*P. obliquiloculata*		1	0.80	-0.50	30	20111122
VM28-234	164	*P. obliquiloculata*		1	1.01	-0.19	28	20111122
VM28-234	126	*P. obliquiloculata*		1	1.63	0.50	39	20111214
VM28-234	146	*P. obliquiloculata*		1	0.70	-0.26	25	20111214
VM28-234	162	*P. obliquiloculata*		1	0.93	0.30	28	20111214
VM28-229	0	*G. tumida*	425-500	1	2.00	-1.22	127	20100426
VM28-229	0	*G. tumida*	425-500	1	2.04	-0.11	85	20100426
VM28-229	0	*G. tumida*	425-500	1	2.01	-0.95	154	20100426
VM28-229	0	*G. tumida*	425-500	1	1.80	-1.01	93	20100426
VM28-229	0	*G. tumida*	425-500	1	1.67	-1.05	128	20100426
VM28-229	0	*G. tumida*	425-500	1	2.35	-1.33	103	20100426
VM28-229	0	*G. tumida*	425-500	1	1.48	-0.07	145	20100426

VM28-229	0	*G. tumida*	425-500	1	2.18	-0.78	128	20100426
VM28-229	0	*G. tumida*	425-500	1	2.15	-0.63	130	20100426
VM28-229	0	*G. tumida*	425-500	1	2.22	0.21	107	20100426
VM28-229	16	*G. tumida*	425-500	1	2.23	-1.17	133	20100514
VM28-229	16	*G. tumida*	425-500	1	2.02	0.38	123	20100514
VM28-229	16	*G. tumida*	425-500	1	1.84	-0.51	105	20100514
VM28-229	14	*G. tumida*	425-500	1	2.15	-0.03	85	20100514
VM28-229	14	*G. tumida*	425-500	1	2.00	0.90	84	20100514
VM28-229	14	*G. tumida*	425-500	1	2.03	1.87	108	20100514
VM28-229	12	*G. tumida*	425-500	1	1.97	0.28	109	20100514
VM28-229	12	*G. tumida*	425-500	1	2.16	0.63	130	20100514
VM28-229	12	*G. tumida*	425-500	1	1.77	0.13	128	20100514
VM28-229	10	*G. tumida*	425-500	1	1.54	0.24	179	20100514
VM28-229	10	*G. tumida*	425-500	1	2.11	-0.84	126	20100514
VM28-229	10	*G. tumida*	425-500	1	2.00	-1.21	128	20100514
VM28-229	8	*G. tumida*	425-500	1	1.61	0.20	141	20100514

VM28-229	8	*G. tumida*	425-500	1	1.73	-0.41	123	20100514
VM28-229	8	*G. tumida*	425-500	1	1.83	-0.85	93	20100514
VM28-229	6	*G. tumida*	425-500	1	1.75	0.17	149	20100514
VM28-229	6	*G. tumida*	425-500	1	1.91	-0.85	145	20100514
VM28-229	6	*G. tumida*	425-500	1	2.09	-1.09	133	20100514
VM28-229	4	*G. tumida*	425-500	1	2.03	0.83	122	20100514
VM28-229	4	*G. tumida*	425-500	1	2.09	-0.99	130	20100514
VM28-229	4	*G. tumida*	425-500	1	1.43	-0.55	152	20100514
VM28-229	2	*G. tumida*	425-500	1	2.01	-1.03	135	20100514
VM28-229	2	*G. tumida*	425-500	1	2.03	-0.90	131	20100514
VM28-229	2	*G. tumida*	425-500	1	1.96	-1.04	123	20100514
VM28-229	32	*G. tumida*	425-500	1	2.27	0.24	108	20100515
VM28-229	32	*G. tumida*	425-500	1	2.22	0.42	115	20100515
VM28-229	32	*G. tumida*	425-500	1	2.13	0.07	138	20100515
VM28-229	30	*G. tumida*	425-500	1	2.27	0.28	121	20100515
VM28-229	30	*G. tumida*	425-500	1	2.12	0.29	116	20100515

VM28-229	30	*G. tumida*	425-500	1	2.08	0.61	106		20100515
VM28-229	28	*G. tumida*	425-500	1	2.20	0.44	113	LGM	20100515
VM28-229	28	*G. tumida*	425-500	1	2.23	0.58	98	LGM	20100515
VM28-229	26	*G. tumida*	425-500	1	2.18	0.99	122	LGM	20100515
VM28-229	26	*G. tumida*	425-500	1	2.42	0.71	110	LGM	20100515
VM28-229	26	*G. tumida*	425-500	1	2.05	0.18	132	LGM	20100515
VM28-229	24	*G. tumida*	425-500	1	2.03	0.60	110		20100515
VM28-229	24	*G. tumida*	425-500	1	1.98	0.87	105		20100515
VM28-229	24	*G. tumida*	425-500	1	2.03	0.67	114		20100515
VM28-229	22	*G. tumida*	425-500	1	2.13	1.05	114		20100515
VM28-229	22	*G. tumida*	425-500	1	2.07	0.72	112		20100515
VM28-229	22	*G. tumida*	425-500	1	1.89	0.81	159		20100515
VM28-229	20	*G. tumida*	425-500	1	2.19	0.84	119		20100515
VM28-229	20	*G. tumida*	425-500	1	1.99	0.55	109		20100515
VM28-229	20	*G. tumida*	425-500	1	2.20	0.82	124		20100515
VM28-229	18	*G. tumida*	425-500	1	2.13	1.63	118		20100515

VM28-229	18	*G. tumida*	425-500	1	2.11	0.50	150	20100515
VM28-229	18	*G. tumida*	425-500	1	2.00	0.61	134	20100515
VM28-229	34	*G. tumida*	425-500	1	2.09	0.62	115	20100517
VM28-229	34	*G. tumida*	425-500	1	2.02	0.19	120	20100517
VM28-229	34	*G. tumida*	425-500	1	1.89	0.48	127	20100517
VM28-229	36	*G. tumida*	425-500	1	1.80	0.51	115	20100517
VM28-229	36	*G. tumida*	425-500	1	2.16	0.23	116	20100517
VM28-229	36	*G. tumida*	425-500	1	2.34	0.18	93	20100517
VM28-229	38	*G. tumida*	425-500	1	2.00	0.10	117	20100517
VM28-229	38	*G. tumida*	425-500	1	2.00	0.48	126	20100517
VM28-229	38	*G. tumida*	425-500	1	2.23	-0.34	110	20100517
VM28-229	44	*G. tumida*	425-500	1	2.16	0.41	125	20100520
VM28-229	42	*G. tumida*	425-500	1	1.99	-0.27	98	20100520
VM28-229	42	*G. tumida*	425-500	1	2.03	0.47	158	20100520
VM28-229	42	*G. tumida*	425-500	1	2.19	0.34	145	20100520
VM28-229	40	*G. tumida*	425-500	1	2.03	0.11	149	20100520

VM28-229	40	*G. tumida*	425-500	1	2.31	0.67	114	20100520
VM28-229	40	*G. tumida*	425-500	1	2.09	0.17	125	20100520
VM28-229	54	*G. tumida*	425-500	1	2.04	0.51	128	20100520
VM28-229	54	*G. tumida*	425-500	1	1.90	0.04	128	20100520
VM28-229	54	*G. tumida*	425-500	1	1.79	0.58	123	20100520
VM28-229	52	*G. tumida*	425-500	1	1.62	-0.20	129	20100520
VM28-229	52	*G. tumida*	425-500	1	2.13	-0.16	124	20100520
VM28-229	50	*G. tumida*	425-500	1	2.18	0.18	146	20100520
VM28-229	50	*G. tumida*	425-500	1	2.10	0.02	106	20100520
VM28-229	48	*G. tumida*	425-500	1	1.87	-0.22	112	20100520
VM28-229	48	*G. tumida*	425-500	1	1.88	0.42	137	20100520
VM28-229	48	*G. tumida*	425-500	1	2.01	-0.27	132	20100520
VM28-229	46	*G. tumida*	425-500	1	2.45	0.41	113	20100520
VM28-229	46	*G. tumida*	425-500	1	2.16	0.81	163	20100520
VM28-229	46	*G. tumida*	425-500	1	1.69	0.39	138	20100520
VM28-229	56	*G. tumida*	425-500	1	2.14	0.02	139	20100522

VM28-229	56	*G. tumida*	425-500	1	2.07	0.80	143	20100522
VM28-229	56	*G. tumida*	425-500	1	2.16	0.25	143	20100522
VM28-229	58	*G. tumida*	425-500	1	1.87	0.07	135	20100522
VM28-229	58	*G. tumida*	425-500	1	1.54	0.00	146	20100522
VM28-229	58	*G. tumida*	425-500	1	1.86	0.28	147	20100522
VM28-229	60	*G. tumida*	425-500	1	2.13	0.01	128	20100522
VM28-229	60	*G. tumida*	425-500	1	2.12	-0.02	123	20100522
VM28-229	60	*G. tumida*	425-500	1	2.58	-0.31	138	20100522
VM28-229	62	*G. tumida*	425-500	1	0.86	-0.34	125	20100522
VM28-229	62	*G. tumida*	425-500	1	1.91	0.39	104	20100522
VM28-229	62	*G. tumida*	425-500	1	2.03	0.05	164	20100522
VM28-229	64	*G. tumida*	425-500	1	1.99	-0.05	155	20100522
VM28-229	64	*G. tumida*	425-500	1	2.14	0.07	117	20100522
VM28-229	64	*G. tumida*	425-500	1	1.74	0.81	102	20100522
VM28-229	66	*G. tumida*	425-500	1	1.98	-0.26	131	20100522
VM28-229	66	*G. tumida*	425-500	1	2.13	0.32	126	20100522

VM28-229	66	*G. tumida*	425-500	1	1.98	-0.64	136		20100522
VM28-229	68	*G. tumida*	425-500	1	1.92	0.37	149		20100522
VM28-229	68	*G. tumida*	425-500	1	2.04	-0.12	106		20100522
VM28-229	68	*G. tumida*	425-500	1	1.96	0.38	124		20100522
VM28-229	70	*G. tumida*	425-500	1	1.85	-0.34	123		20100522
VM28-229	70	*G. tumida*	425-500	1	2.16	0.02	128		20100522
VM28-229	70	*G. tumida*	425-500	1	1.99	-0.11	154		20100522
VM28-229	28	*G. tumida*	355-425	1	1.84	1.13	51	LGM	20110504
VM28-229	28	*G. tumida*	355-425	1	2.09	0.93	52	LGM	20110504
VM28-229	28	*G. tumida*	355-425	1	2.18	0.36	61	LGM	20110504
VM28-229	28	*G. tumida*	355-425	1	2.35	0.27	61	LGM	20110504
VM28-229	28	*G. tumida*	355-425	1	2.04	0.87	60	LGM	20110504
VM28-229	28	*G. tumida*	355-425	1	2.29	0.34	73	LGM	20110504
VM28-229	28	*G. tumida*	355-425	1	1.82	0.45	69	LGM	20110504
VM28-229	28	*G. tumida*	355-425	1	1.96	1.16	71	LGM	20110504
VM28-229	30	*G. tumida*	355-425	1	2.19	0.68	72		20110504

VM28-229	30	*G. tumida*	355-425	1	2.08	0.59	68	20110504
VM28-229	30	*G. tumida*	355-425	1	1.98	0.94	51	20110504
VM28-229	30	*G. tumida*	355-425	1	2.32	0.27	85	20110504
VM28-229	30	*G. tumida*	355-425	1	2.29	0.29	61	20110504
VM28-229	30	*G. tumida*	355-425	1	2.05	0.48	70	20110504
VM28-229	30	*G. tumida*	425-500	1	2.34	0.51	115	20110504
VM28-229	30	*G. tumida*	425-500	1	2.14	0.68	113	20110504
VM28-229	30	*G. tumida*	425-500	1	2.21	0.18	107	20110504
VM28-229	0	*G. ruber*	250-355	10	1.21	-1.72	121	20100517
VM28-229	2	*G. ruber*	250-355	10	1.02	-1.88	115	20100517
VM28-229	4	*G. ruber*	250-355	10	1.04	-1.90	117	20100517
VM28-229	6	*G. ruber*	250-355	10	1.25	-1.83	131	20100517
VM28-229	8	*G. ruber*	250-355	10	1.04	-1.65	118	20100517
VM28-229	10	*G. ruber*	250-355	10	1.39	-1.87	123	20100517
VM28-229	12	*G. ruber*	250-355	10	1.22	-1.83	126	20100517
VM28-229	14	*G. ruber*	250-355	10	0.86	-1.72	116	20100517

VM28-229	16	*G. ruber*	250-355	10	0.67	-1.72	99		20100517
VM28-229	18	*G. ruber*	250-355	10	1.05	-1.78	98		20100517
VM28-229	20	*G. ruber*	250-355	10	1.16	-1.81	123		20100517
VM28-229	22	*G. ruber*	250-355	10	1.07	-1.39	101		20100517
VM28-229	24	*G. ruber*	250-355	10	1.40	-1.37	120		20100517
VM28-229	26	*G. ruber*	250-355	10	1.17	-1.58	91	LGM	20100517
VM28-229	28	*G. ruber*	250-355	10	1.12	-1.09	101	LGM	20100517
VM28-229	30	*G. ruber*	250-355	10	1.02	-1.25	91		20100823
VM28-229	32	*G. ruber*	250-355	10	1.36	-1.28	90		20100823
VM28-229	34	*G. ruber*	250-355	10	0.95	-1.51	90		20100823
VM28-229	36	*G. ruber*	250-355	10	1.34	-1.52	103		20100823
VM28-229	38	*G. ruber*	250-355	10	0.85	-1.93	101		20100823
VM28-229	40	*G. ruber*	250-355	10	1.28	-1.14	108		20100823
VM28-229	72	*G. ruber*	250-355	10	1.36	-1.65	93		20101209
VM28-229	72	*G. ruber*	250-355	10	1.25	-1.69	100		20101209
VM28-229	74	*G. ruber*	250-355	10	1.49	-1.68	111		20101209

VM28-229	74	*G. ruber*	250-355	10	1.41	-1.58	98	20101209
VM28-229	76	*G. ruber*	250-355	10	0.95	-1.66	92	20101209
VM28-229	76	*G. ruber*	250-355	10	1.25	-1.70	105	20101209
VM28-229	78	*G. ruber*	250-355	10	1.11	-1.76	91	20101209
VM28-229	78	*G. ruber*	250-355	10	0.82	-1.85	100	20101209
VM28-229	80	*G. ruber*	250-355	10	1.13	-1.75	104	20101209
VM28-229	80	*G. ruber*	250-355	10	1.11	-1.63	119	20101209
VM28-229	82	*G. ruber*	250-355	10	1.21	-1.74	90	20101209
VM28-229	82	*G. ruber*	250-355	10	0.95	-1.68	122	20101209
VM28-229	84	*G. ruber*	250-355	10	1.37	-1.79	105	20101209
VM28-229	84	*G. ruber*	250-355	10	1.15	-1.69	107	20101209
VM28-229	86	*G. ruber*	250-355	10	1.11	-1.69	98	20101209
VM28-229	86	*G. ruber*	250-355	10	0.92	-1.80	92	20101209
VM28-229	88	*G. ruber*	250-355	10	0.73	-1.73	124	20101209
VM28-229	88	*G. ruber*	250-355	10	1.26	-1.63	125	20101209
VM28-229	90	*G. ruber*	250-355	10	1.16	-1.60	122	20101209

VM28-229	90	*G. ruber*	250-355	10	1.05	-1.67	127	20101209
VM28-229	92	*G. ruber*	250-355	10	1.04	-1.74	119	20101209
VM28-229	92	*G. ruber*	250-355	10	0.99	-1.72	142	20101209
VM28-229	94	*G. ruber*	250-355	10	1.16	-1.61	125	20101209
VM28-229	94	*G. ruber*	250-355	10	1.10	-1.74	112	20101209
VM28-229	96	*G. ruber*	250-355	10	1.04	-1.66	128	20101209
VM28-229	98	*G. ruber*	250-355	10	0.97	-1.73	129	20101209
VM28-229	42	*G. ruber*	250-355	10	1.10	-1.57	98	20101210
VM28-229	42	*G. ruber*	250-355	10	1.08	-1.34	91	20101210
VM28-229	44	*G. ruber*	250-355	10	1.22	-1.27	86	20101210
VM28-229	44	*G. ruber*	250-355	10	0.89	-1.07	107	20101210
VM28-229	46	*G. ruber*	250-355	10	0.93	-1.48	89	20101210
VM28-229	46	*G. ruber*	250-355	10	1.35	-1.43	99	20101210
VM28-229	48	*G. ruber*	250-355	10	1.13	-1.21	86	20101210
VM28-229	48	*G. ruber*	250-355	10	1.57	-1.15	90	20101210
VM28-229	50	*G. ruber*	250-355	10	1.39	-1.41	103	20101210

VM28-229	50	*G. ruber*	250-355	10	1.35	-1.35	86	20101210
VM28-229	52	*G. ruber*	250-355	10	1.13	-1.26	91	20101210
VM28-229	52	*G. ruber*	250-355	10	1.24	-1.42	85	20101210
VM28-229	54	*G. ruber*	250-355	10	1.10	-1.54	90	20101210
VM28-229	54	*G. ruber*	250-355	10	1.31	-1.38	84	20101210
VM28-229	56	*G. ruber*	250-355	10	1.33	-1.47	108	20101210
VM28-229	56	*G. ruber*	250-355	10	0.91	-1.55	99	20101210
VM28-229	58	*G. ruber*	250-355	10	0.90	-1.39	92	20101210
VM28-229	58	*G. ruber*	250-355	10	1.05	-1.48	86	20101210
VM28-229	60	*G. ruber*	250-355	10	1.26	-1.41	89	20101210
VM28-229	60	*G. ruber*	250-355	10	1.39	-1.38	91	20101210
VM28-229	62	*G. ruber*	250-355	10	1.61	-1.36	99	20101210
VM28-229	62	*G. ruber*	250-355	10	1.26	-1.31	104	20101210
VM28-229	64	*G. ruber*	250-355	10	1.44	-1.52	97	20101210
VM28-229	64	*G. ruber*	250-355	10	1.35	-1.39	102	20101210
VM28-229	66	*G. ruber*	250-355	10	1.05	-1.58	100	20101210

VM28-229	66	*G. ruber*	250-355	10	1.25	-1.47	107	20101210
VM28-229	68	*G. ruber*	250-355	10	1.02	-1.63	90	20101210
VM28-229	68	*G. ruber*	250-355	10	1.42	-1.51	113	20101210
VM28-229	70	*G. ruber*	250-355	10	1.08	-1.67	92	20101210
VM28-229	70	*G. ruber*	250-355	10	1.38	-1.62	113	20101210
VM28-229	212	*G. ruber*	250-355	10	1.31	-1.50	108	20110422
VM28-229	216	*G. ruber*	250-355	10	1.18	-1.42	112	20110422
VM28-229	112	*G. ruber*	250-355	10	0.99	-1.63	122	20110422
VM28-229	112	*G. ruber*	250-355	10	0.84	-1.65	97	20110422
VM28-229	148	*G. ruber*	250-355	10	0.47	-1.33	109	20110422
VM28-229	148	*G. ruber*	250-355	10	0.67	-1.35	105	20110422
VM28-229	152	*G. ruber*	250-355	10	0.45	-1.15	119	20110422
VM28-229	152	*G. ruber*	250-355	10	0.57	-0.94	97	20110422
VM28-229	156	*G. ruber*	250-355	10	0.83	-1.48	136	20110422
VM28-229	156	*G. ruber*	250-355	10	0.49	-1.13	112	20110422
VM28-229	160	*G. ruber*	250-355	10	0.79	-0.99	126	20110422

VM28-229	160	*G. ruber*	250-355	10	0.59	-1.01	97	20110422
VM28-229	164	*G. ruber*	250-355	10	1.02	-0.99	124	20110422
VM28-229	164	*G. ruber*	250-355	10	1.06	-1.07	118	20110422
VM28-229	168	*G. ruber*	250-355	10	0.87	-1.25	119	20110422
VM28-229	168	*G. ruber*	250-355	10	1.04	-1.11	104	20110422
VM28-229	172	*G. ruber*	250-355	10	1.09	-1.31	106	20110422
VM28-229	172	*G. ruber*	250-355	10	0.79	-1.43	100	20110422
VM28-229	176	*G. ruber*	250-355	10	1.02	-1.24	121	20110422
VM28-229	176	*G. ruber*	250-355	10	0.92	-1.11	89	20110422
VM28-229	180	*G. ruber*	250-355	10	0.97	-1.24	137	20110422
VM28-229	180	*G. ruber*	250-355	10	0.95	-1.16	96	20110422
VM28-229	184	*G. ruber*	250-355	10	1.06	-1.07	122	20110422
VM28-229	184	*G. ruber*	250-355	10	1.10	-1.16	86	20110422
VM28-229	188	*G. ruber*	250-355	10	0.76	-0.95	114	20110422
VM28-229	188	*G. ruber*	250-355	10	0.98	-1.10	110	20110422
VM28-229	192	*G. ruber*	250-355	10	0.64	-1.20	100	20110422

VM28-229	196	*G. ruber*	250-355	10	0.54	-1.42	93	20110422
VM28-229	196	*G. ruber*	250-355	10	0.88	-1.37	99	20110422
VM28-229	200	*G. ruber*	250-355	10	1.06	-1.53	92	20110422
VM28-229	200	*G. ruber*	250-355	10	0.84	-1.41	96	20110422
VM28-229	204	*G. ruber*	250-355	10	1.27	-1.53	123	20110422
VM28-229	204	*G. ruber*	250-355	10	1.06	-1.56	102	20110422
VM28-229	208	*G. ruber*	250-355	10	0.65	-1.49	110	20110422
VM28-229	208	*G. ruber*	250-355	10	1.19	-1.38	95	20110422
VM28-229	212	*G. ruber*	250-355	10	1.01	-1.72	105	20110422
VM28-229	44	*G. ruber*	250-355	10	1.45	-1.29	105	20110909
VM28-229	44	*G. ruber*	250-355	10	1.32	-1.30	89	20110909
VM28-229	48	*G. ruber*	250-355	10	1.20	-1.40	80	20110909
VM28-229	46	*G. ruber*	250-355	9	0.99	-1.32	79	20110909
VM28-229	50	*G. ruber*	250-355	10	1.10	-1.52	92	20110909
VM28-229	50	*G. ruber*	250-355	10	1.18	-1.37	80	20110909
VM28-229	52	*G. ruber*	250-355	10	1.64	-1.51	103	20110909

VM28-229	52	*G. ruber*	250-355	10	1.15	-1.31	99	20110909
VM28-229	54	*G. ruber*	250-355	10	0.98	-1.45	105	20110909
VM28-229	54	*G. ruber*	250-355	10	1.09	-1.27	91	20110909
VM28-229	56	*G. ruber*	250-355	10	1.25	-1.33	103	20110909
VM28-229	56	*G. ruber*	250-355	10	1.03	-1.54	92	20110909
VM28-229	58	*G. ruber*	250-355	10	1.22	-1.36	108	20110909
VM28-229	58	*G. ruber*	250-355	10	0.91	-1.51	91	20110909
VM28-229	60	*G. ruber*	250-355	10	1.30	-1.50	97	20110909
VM28-229	60	*G. ruber*	250-355	10	1.38	-1.31	82	20110909
VM28-229	62	*G. ruber*	250-355	10	1.14	-1.39	92	20110909
VM28-229	62	*G. ruber*	250-355	10	1.10	-1.42	89	20110909
VM28-229	64	*G. ruber*	250-355	10	1.35	-1.48	91	20110909
VM28-229	64	*G. ruber*	250-355	10	1.21	-1.66	92	20110909
VM28-229	66	*G. ruber*	250-355	10	1.26	-1.45	98	20110909
VM28-229	66	*G. ruber*	250-355	9	1.43	-1.45	104	20110909
VM28-229	68	*G. ruber*	250-355	10	1.31	-1.52	91	20110909

VM28-229	68	*G. ruber*	250-355	10	1.11	-1.49	117	20110909
VM28-229	70	*G. ruber*	250-355	10	1.08	-1.54	105	20110909
VM28-229	70	*G. ruber*	250-355	10	1.41	-1.57	99	20110909
VM28-229	112	*G. ruber*	250-355	10	1.21	-1.72	109	20111216
VM28-229	128	*G. ruber*	250-355	10	0.89	-1.69	102	20111216
VM28-229	148	*G. ruber*	250-355	10	0.59	-1.18	105	20111216
VM28-229	26	*P. obliquiloculata*	355-425	1	1.65	0.47	36	20110620
VM28-229	26	*P. obliquiloculata*	355-425	1	1.43	-0.32	54	20110620
VM28-229	26	*P. obliquiloculata*	355-425	1	1.31	-0.58	36	20110620
VM28-229	28	*P. obliquiloculata*	355-425	1	1.60	0.23	34	20110620
VM28-229	28	*P. obliquiloculata*	355-425	1	1.64	-0.37	38	20110620
VM28-229	26	*P. obliquiloculata*	355-425	1	1.55	0.09	30	20111121
VM28-229	26	*P. obliquiloculata*	355-425	1	1.60	-0.12	32	20111121
VM28-229	28	*P. obliquiloculata*	355-425	1	1.47	0.43	25	20111121
VM28-229	28	*P. obliquiloculata*	355-425	1	0.98	-0.37	31	20111121
VM28-227	0	*G. tumida*	425-500	1	2.12	-0.58	94	20090403

VM28-227	0	*G. tumida*	425-500	1	1.70	-0.34	136	20090403
VM28-227	0	*G. tumida*	425-500	1	2.03	-0.45	106	20090403
VM28-227	0	*G. tumida*	425-500	1	2.11	-0.72	140	20090403
VM28-227	0	*G. tumida*	425-500	1	2.01	-0.04	136	20090403
VM28-227	0	*G. tumida*	425-500	1	2.16	-0.90	116	20090403
VM28-227	0	*G. tumida*	425-500	1	2.14	-0.52	97	20090403
VM28-227	0	*G. tumida*	425-500	1	1.92	-0.42	154	20090403
VM28-227	0	*G. tumida*	425-500	1	2.25	0.67	98	20090403
VM28-227	0	*G. tumida*	425-500	1	1.99	0.49	104	20090403
VM28-227	0	*G. tumida*	425-500	1	2.08	-0.99	154	20090403
VM28-227	0	*G. tumida*	425-500	1	2.11	-0.57	101	20090403
VM28-227	36	*G. tumida*	425-500	1	2.50	0.72	135	20090408
VM28-227	36	*G. tumida*	425-500	1	2.06	0.67	105	20090408
VM28-227	36	*G. tumida*	425-500	1	2.20	0.28	122	20090408
VM28-227	36	*G. tumida*	425-500	1	2.09	0.65	107	20090408
VM28-227	36	*G. tumida*	425-500	1	2.31	0.15	142	20090408

VM28-227	36	*G. tumida*	425-500	1	2.20	0.27	121		20090408
VM28-227	36	*G. tumida*	425-500	1	2.21	0.79	132		20090408
VM28-227	36	*G. tumida*	425-500	1	2.40	0.17	117		20090408
VM28-227	36	*G. tumida*	425-500	1	2.14	0.47	123		20090408
VM28-227	36	*G. tumida*	425-500	1	2.19	1.00	129		20090408
VM28-227	36	*G. tumida*	425-500	1	2.00	0.55	137		20090408
VM28-227	32	*G. tumida*	425-500	1	2.03	0.71	110		20110510
VM28-227	32	*G. tumida*	425-500	1	2.18	0.54	124		20110510
VM28-227	32	*G. tumida*	425-500	1	1.86	1.09	105		20110510
VM28-227	32	*G. tumida*	425-500	1	2.11	0.20	142		20110510
VM28-227	32	*G. tumida*	425-500	1	1.91	0.98	121		20110510
VM28-227	32	*G. tumida*	425-500	1	2.39	0.24	102		20110510
VM28-227	32	*G. tumida*	425-500	1	2.21	0.70	140		20110510
VM28-227	32	*G. tumida*	425-500	1	2.49	-0.14	125		20110510
VM28-227	32	*G. tumida*	425-500	1	1.96	0.85	92		20110510
VM28-227	28	*G. tumida*	425-500	1	1.80	0.51	91	LGM	20110606

VM28-227	28	*G. tumida*	425-500	1	1.99	1.09	114	LGM	20110606
VM28-227	28	*G. tumida*	425-500	1	1.98	0.27	117	LGM	20110606
VM28-227	28	*G. tumida*	425-500	1	2.04	0.43	93	LGM	20110606
VM28-227	28	*G. tumida*	425-500	1	2.10	0.97	100	LGM	20110606
VM28-227	28	*G. tumida*	425-500	1	1.97	1.19	93	LGM	20110606
VM28-227	28	*G. tumida*	425-500	1	2.06	1.52	112	LGM	20110606
VM28-227	28	*G. tumida*	425-500	1	2.15	1.02	124	LGM	20110606
VM28-227	28	*G. tumida*	425-500	1	2.30	0.22	146	LGM	20110810
VM28-227	28	*G. tumida*	425-500	1	2.15	1.29	130	LGM	20110810
VM28-227	28	*G. tumida*	425-500	1	2.06	0.29	124	LGM	20110810
VM28-227	28	*G. tumida*	425-500	1	2.28	0.68	127	LGM	20110810
VM28-227	28	*G. tumida*	425-500	1	2.13	0.90	144	LGM	20110810
VM28-227	28	*G. tumida*	425-500	1	2.20	0.61	145	LGM	20110810
VM28-227	28	*G. tumida*	425-500	1	2.04	0.80	135	LGM	20110810
VM28-227	28	*G. tumida*	425-500	1	2.06	0.75	134	LGM	20110810
VM28-227	28	*G. tumida*	425-500	1	2.16	0.94	123	LGM	20110810

VM28-227	28	*G. tumida*	425-500	1	1.93	-0.07	129	LGM	20110810
VM28-227	28	*G. tumida*	425-500	1	2.14	0.77	124	LGM	20110810
VM28-227	28	*G. tumida*	425-500	1	2.37	0.39	150	LGM	20110810
VM28-227	0	*G. ruber*	250-355	10	0.78	-1.57	129		20090403
VM28-227	4	*G. ruber*	250-355	10	0.91	-1.59	122		20090403
VM28-227	8	*G. ruber*	250-355	10	0.95	-1.69	132		20090403
VM28-227	12	*G. ruber*	250-355	10	0.50	-1.73	123		20090403
VM28-227	16	*G. ruber*	250-355	10	0.90	-1.53	140		20090403
VM28-227	20	*G. ruber*	250-355	10	0.98	-1.43	128		20090403
VM28-227	24	*G. ruber*	250-355	10	0.76	-1.55	102		20090403
VM28-227	28	*G. ruber*	250-355	10	0.90	-1.34	129	LGM	20090403
VM28-227	32	*G. ruber*	250-355	10	0.76	-0.95	96		20090403
VM28-227	36	*G. ruber*	250-355	10	1.06	-0.85	111		20090403
VM28-227	40	*G. ruber*	250-355	10	0.74	-1.24	109		20090403
VM28-227	44	*G. ruber*	250-355	10	0.93	-1.11	97		20090403
VM28-227	48	*G. ruber*	250-355	10	0.84	-1.26	117		20090403

VM28-227	28	*P. obliquiloculata*	355-425	1	1.01	-0.55	49	20110620
VM28-227	28	*P. obliquiloculata*	355-425	1	1.48	0.09	46	20110620
VM28-227	28	*P. obliquiloculata*	355-425	1	1.24	0.30	37	20110620
VM28-227	28	*P. obliquiloculata*	355-425	1	0.52	0.15	33	20111121
VM28-227	28	*P. obliquiloculata*	355-425	1	1.58	0.13	39	20111121
VM28-227	28	*P. obliquiloculata*	355-425	1	0.97	0.32	32	20111121
VM28-227	28	*P. obliquiloculata*	355-425	1	0.98	0.15	29	20111121
VM28-227	28	*P. obliquiloculata*	355-425	1	1.21	0.03	28	20111121
VM28-227	28	*P. obliquiloculata*	355-425	1	1.19	-0.11	34	20111121
RC12-118	0	*G. tumida*	425-500	1	2.01	-0.84	154	20100423
RC12-118	0	*G. tumida*	425-500	1	2.02	-1.11	123	20100423
RC12-118	0	*G. tumida*	425-500	1	2.07	-0.74	126	20100423
RC12-118	36	*G. tumida*	425-500	1	1.82	0.28	145	20100528
RC12-118	36	*G. tumida*	425-500	1	2.37	0.09	111	20100528
RC12-118	36	*G. tumida*	425-500	1	2.08	0.51	124	20100528
RC12-118	40	*G. tumida*	425-500	1	2.36	0.02	129	20100528

RC12-118	40	*G. tumida*	425-500	1	2.21	0.43	156	20100528
RC12-118	40	*G. tumida*	425-500	1	2.33	0.25	130	20100528
RC12-118	44	*G. tumida*	425-500	1	2.13	-0.09	154	20100528
RC12-118	44	*G. tumida*	425-500	1	2.20	0.05	166	20100528
RC12-118	48	*G. tumida*	425-500	1	2.26	0.31	120	20100528
RC12-118	48	*G. tumida*	425-500	1	2.34	0.80	110	20100528
RC12-118	48	*G. tumida*	425-500	1	2.25	0.96	112	20100528
RC12-118	52	*G. tumida*	425-500	1	2.17	0.07	151	20100528
RC12-118	52	*G. tumida*	425-500	1	2.38	0.02	155	20100528
RC12-118	52	*G. tumida*	425-500	1	2.13	0.59	125	20100528
RC12-118	56	*G. tumida*	425-500	1	2.32	0.77	163	20100528
RC12-118	56	*G. tumida*	425-500	1	1.95	-0.20	134	20100528
RC12-118	56	*G. tumida*	425-500	1	2.28	0.28	154	20100528
RC12-118	8	*G. tumida*	425-500	1	2.20	0.76	107	20100609
RC12-118	12	*G. tumida*	425-500	1	2.32	0.38	119	20100609
RC12-118	12	*G. tumida*	425-500	1	2.33	-0.04	112	20100609

RC12-118	12	*G. tumida*	425-500	1	2.40	0.74	117	20100609
RC12-118	16	*G. tumida*	425-500	1	2.00	1.26	130	20100609
RC12-118	16	*G. tumida*	425-500	1	2.11	1.31	109	20100609
RC12-118	24	*G. tumida*	425-500	1	1.68	0.51	125	20100609
RC12-118	24	*G. tumida*	425-500	1	1.94	0.25	159	20100609
RC12-118	24	*G. tumida*	425-500	1	1.72	0.67	121	20100609
RC12-118	28	*G. tumida*	425-500	1	2.42	0.25	124	20100609
RC12-118	28	*G. tumida*	425-500	1	2.31	0.54	121	20100609
RC12-118	28	*G. tumida*	425-500	1	2.20	0.58	157	20100609
RC12-118	32	*G. tumida*	425-500	1	2.28	0.15	156	20100609
RC12-118	32	*G. tumida*	425-500	1	2.34	0.19	128	20100609
RC12-118	36	*G. tumida*	425-500	1	2.30	0.58	142	20100609
RC12-118	36	*G. tumida*	425-500	1	2.07	0.36	131	20100609
RC12-118	36	*G. tumida*	425-500	1	2.24	0.38	158	20100609
RC12-118	40	*G. tumida*	425-500	1	2.09	1.17	158	20100609
RC12-118	40	*G. tumida*	425-500	1	2.23	0.20	106	20100609

RC12-118	40	*G. tumida*	425-500	1	2.50	0.11	162	20100609
RC12-118	44	*G. tumida*	425-500	1	1.65	0.34	147	20100609
RC12-118	44	*G. tumida*	425-500	1	2.17	0.52	124	20100609
RC12-118	44	*G. tumida*	425-500	1	2.35	0.09	123	20100609
RC12-118	48	*G. tumida*	425-500	1	2.20	0.88	135	20100609
RC12-118	64	*G. tumida*	425-500	1	2.35	0.10	153	20101115
RC12-118	64	*G. tumida*	425-500	1	1.90	-0.15	161	20101115
RC12-118	68	*G. tumida*	425-500	1	1.79	1.14	105	20101115
RC12-118	68	*G. tumida*	425-500	1	1.29	0.26	134	20101115
RC12-118	68	*G. tumida*	425-500	1	2.17	0.51	120	20101115
RC12-118	72	*G. tumida*	425-500	1	2.00	0.38	132	20101115
RC12-118	72	*G. tumida*	425-500	1	1.98	0.11	140	20101115
RC12-118	72	*G. tumida*	425-500	1	1.99	-0.62	123	20101115
RC12-118	76	*G. tumida*	425-500	1	2.21	0.27	134	20101115
RC12-118	76	*G. tumida*	425-500	1	1.42	0.12	107	20101115
RC12-118	76	*G. tumida*	425-500	1	1.96	-0.05	154	20101115

RC12-118	80	*G. tumida*	425-500	1	2.13	0.38	138	20101115
RC12-118	80	*G. tumida*	425-500	1	2.15	0.08	136	20101115
RC12-118	80	*G. tumida*	425-500	1	1.76	-0.23	104	20101115
RC12-118	84	*G. tumida*	425-500	1	2.01	0.37	116	20101115
RC12-118	84	*G. tumida*	425-500	1	2.30	0.21	153	20101115
RC12-118	84	*G. tumida*	425-500	1	1.96	0.29	110	20101115
RC12-118	88	*G. tumida*	425-500	1	2.00	0.33	122	20101115
RC12-118	88	*G. tumida*	425-500	1	1.97	-0.10	137	20101115
RC12-118	92	*G. tumida*	425-500	1	2.41	0.06	148	20101115
RC12-118	92	*G. tumida*	425-500	1	2.28	0.21	132	20101115
RC12-118	92	*G. tumida*	425-500	1	1.93	0.02	128	20101115
RC12-118	96	*G. tumida*	425-500	1	2.08	0.23	112	20101116
RC12-118	96	*G. tumida*	425-500	1	2.18	-0.20	135	20101116
RC12-118	100	*G. tumida*	425-500	1	2.02	-0.09	153	20101116
RC12-118	100	*G. tumida*	425-500	1	1.98	-0.14	155	20101116
RC12-118	4	*G. ruber*	250-355	10	1.02	-1.62	126	20100414

RC12-118	12	*G. ruber*	250-355	10	1.14	-1.50	154	20100414
RC12-118	16	*G. ruber*	250-355	10	0.88	-1.37	146	20100414
RC12-118	20	*G. ruber*	250-355	10	0.84	-1.27	154	20100414
RC12-118	24	*G. ruber*	250-355	10	1.04	-1.17	140	20100414
RC12-118	28	*G. ruber*	250-355	10	1.25	-0.96	132	20100414
RC12-118	32	*G. ruber*	250-355	10	1.13	-1.15	143	20100414
RC12-118	36	*G. ruber*	250-355	10	0.91	-1.16	139	20100414
RC12-118	40	*G. ruber*	250-355	10	0.84	-1.14	125	20100414
RC12-118	44	*G. ruber*	250-355	10	1.16	-1.13	152	20100414
RC12-118	48	*G. ruber*	250-355	10	1.20	-1.23	147	20100414
RC12-118	52	*G. ruber*	250-355	10	1.29	-1.20	167	20100414
RC12-118	56	*G. ruber*	250-355	10	1.16	-1.33	136	20100414
RC12-118	60	*G. ruber*	250-355	10	1.36	-1.21	131	20100414
RC12-118	64	*G. ruber*	250-355	10	1.39	-1.28	159	20100414
RC12-118	68	*G. ruber*	250-355	10	1.27	-1.38	138	20100414
RC12-118	72	*G. ruber*	250-355	10	1.32	-1.38	162	20100414

RC12-118	76	*G. ruber*	250-355	10	1.18	-1.42	133	20100414
RC12-118	80	*G. ruber*	250-355	10	1.45	-1.35	141	20100414
RC12-118	84	*G. ruber*	250-355	10	0.98	-1.48	134	20100414
RC12-118	88	*G. ruber*	250-355	10	1.25	-1.37	138	20100414
RC12-118	92	*G. ruber*	250-355	10	1.16	-1.44	153	20100414
RC12-118	96	*G. ruber*	250-355	10	1.41	-1.56	108	20100414
RC12-118	100	*G. ruber*	250-355	10	1.46	-1.52	162	20100414
VM28-213TW	0	*G. ruber*	250-355	10	0.64	-2.50	117	20100409
VM28-213TW	2	*G. ruber*	250-355	10	0.72	-1.70	132	20100409
VM28-213	0	*G. tumida*	425-500	1	2.12	-1.11	162	20100423
VM28-213	0	*G. tumida*	425-500	1	2.45	0.31	138	20100423
VM28-213	0	*G. tumida*	425-500	1	2.39	-0.01	159	20100423
VM28-213	0	*G. tumida*	425-500	1	2.19	0.23	131	20100423
VM28-213	0	*G. tumida*	425-500	1	2.05	-0.81	136	20100423
VM28-213	0	*G. tumida*	425-500	1	1.78	-0.99	141	20100423
VM28-213	0	*G. tumida*	425-500	1	2.03	0.15	152	20100423

VM28-213	0	*G. tumida*	425-500	1	2.24	0.68	125	20100423
VM28-213	0	*G. tumida*	425-500	1	2.13	0.16	113	20100526
VM28-213	0	*G. tumida*	425-500	1	2.26	0.34	116	20100526
VM28-213	0	*G. tumida*	425-500	1	2.16	0.56	95	20100526
VM28-213	4	*G. tumida*	425-500	1	1.90	0.84	132	20100526
VM28-213	4	*G. tumida*	425-500	1	2.61	0.04	164	20100526
VM28-213	4	*G. tumida*	425-500	1	2.08	0.34	161	20100526
VM28-213	8	*G. tumida*	425-500	1	2.21	0.16	153	20100526
VM28-213	8	*G. tumida*	425-500	1	2.24	0.03	158	20100526
VM28-213	8	*G. tumida*	425-500	1	2.28	-0.39	163	20100526
VM28-213	12	*G. tumida*	425-500	1	2.32	0.75	152	20100526
VM28-213	12	*G. tumida*	425-500	1	2.56	0.37	126	20100526
VM28-213	12	*G. tumida*	425-500	1	2.34	0.47	135	20100526
VM28-213	16	*G. tumida*	425-500	1	2.34	0.16	148	20100526
VM28-213	16	*G. tumida*	425-500	1	2.00	0.03	151	20100526
VM28-213	16	*G. tumida*	425-500	1	2.71	-0.16	139	20100526

VM28-213	20	*G. tumida*	425-500	1	2.51	0.32	153	20100526
VM28-213	20	*G. tumida*	425-500	1	1.92	-0.80	130	20100526
VM28-213	20	*G. tumida*	425-500	1	2.53	0.09	153	20100526
VM28-213	24	*G. tumida*	425-500	1	2.22	0.70	137	20100526
VM28-213	24	*G. tumida*	425-500	1	2.49	0.12	125	20100526
VM28-213	24	*G. tumida*	425-500	1	2.28	0.45	159	20100526
VM28-213	28	*G. tumida*	425-500	1	2.41	-0.19	131	20100526
VM28-213	28	*G. tumida*	425-500	1	2.12	0.15	162	20100526
VM28-213	28	*G. tumida*	425-500	1	2.34	0.14	164	20100526
VM28-213	32	*G. tumida*	425-500	1	2.75	-0.33	147	20100528
VM28-213	32	*G. tumida*	425-500	1	1.80	0.18	125	20100528
VM28-213	32	*G. tumida*	425-500	1	2.18	0.07	128	20100528
VM28-213	36	*G. tumida*	425-500	1	2.31	0.24	161	20100528
VM28-213	36	*G. tumida*	425-500	1	2.31	-0.29	133	20100528
VM28-213	36	*G. tumida*	425-500	1	2.47	-0.03	150	20100528
VM28-213	40	*G. tumida*	425-500	1	2.53	0.29	138	20100528

VM28-213	40	*G. tumida*	425-500	1	2.43	0.00	147	20100528
VM28-213	40	*G. tumida*	425-500	1	2.58	-0.48	133	20100528
VM28-213	44	*G. tumida*	425-500	1	1.45	0.30	136	20100528
VM28-213	44	*G. tumida*	425-500	1	2.07	-0.17	148	20100528
VM28-213	44	*G. tumida*	425-500	1	2.38	-0.32	139	20100528
VM28-213	48	*G. tumida*	425-500	1	1.84	0.49	163	20100528
VM28-213	48	*G. tumida*	425-500	1	2.17	-0.29	131	20100528
VM28-213	48	*G. tumida*	425-500	1	2.42	-0.31	164	20100528
VM28-213	52	*G. tumida*	425-500	1	2.00	-0.24	165	20100528
VM28-213	52	*G. tumida*	425-500	1	2.21	-0.15	147	20100528
VM28-213	52	*G. tumida*	425-500	1	2.41	-0.56	141	20100528
VM28-213	8	*G. tumida*	425-500	1	2.34	-0.11	145	20100608
VM28-213	8	*G. tumida*	425-500	1	2.15	-0.37	160	20100608
VM28-213	8	*G. tumida*	425-500	1	2.08	0.77	123	20100608
VM28-213	12	*G. tumida*	425-500	1	2.16	0.24	131	20100608
VM28-213	12	*G. tumida*	425-500	1	2.42	0.20	128	20100608

VM28-213	12	*G. tumida*	425-500	1	2.18	0.26	137	20100608
VM28-213	16	*G. tumida*	425-500	1	2.16	0.48	168	20100608
VM28-213	16	*G. tumida*	425-500	1	2.13	0.03	125	20100608
VM28-213	16	*G. tumida*	425-500	1	2.13	0.37	141	20100608
VM28-213	20	*G. tumida*	425-500	1	2.17	0.48	131	20100608
VM28-213	20	*G. tumida*	425-500	1	2.12	0.06	116	20100608
VM28-213	20	*G. tumida*	425-500	1	1.97	0.17	108	20100608
VM28-213	24	*G. tumida*	425-500	1	2.36	0.15	134	20100608
VM28-213	24	*G. tumida*	425-500	1	1.98	-0.16	169	20100608
VM28-213	24	*G. tumida*	425-500	1	2.10	0.19	144	20100608
VM28-213	28	*G. tumida*	425-500	1	2.47	0.29	126	20100608
VM28-213	28	*G. tumida*	425-500	1	2.29	0.80	135	20100608
VM28-213	28	*G. tumida*	425-500	1	2.23	0.33	163	20100608
VM28-213	32	*G. tumida*	425-500	1	2.27	0.25	134	20100608
VM28-213	32	*G. tumida*	425-500	1	2.22	0.64	154	20100608
VM28-213	32	*G. tumida*	425-500	1	2.45	-0.41	146	20100608

VM28-213	36	*G. tumida*	425-500	1	2.18	-0.19	145	20100608
VM28-213	36	*G. tumida*	425-500	1	2.32	0.38	133	20100608
VM28-213	36	*G. tumida*	425-500	1	2.17	-0.15	111	20100608
VM28-213	28	*G. tumida*	425-500	1	2.19	-0.42	152	20100625
VM28-213	28	*G. tumida*	425-500	1	1.97	0.14	144	20100625
VM28-213	28	*G. tumida*	425-500	1	2.11	0.60	145	20100625
VM28-213	24	*G. tumida*	425-500	1	2.42	0.39	159	20100625
VM28-213	24	*G. tumida*	425-500	1	2.27	-0.07	144	20100625
VM28-213	24	*G. tumida*	425-500	1	2.43	0.58	132	20100625
VM28-213	20	*G. tumida*	425-500	1	2.32	0.39	170	20100625
VM28-213	20	*G. tumida*	425-500	1	2.47	0.15	149	20100625
VM28-213	20	*G. tumida*	425-500	1	2.11	0.55	160	20100625
VM28-213	16	*G. tumida*	425-500	1	1.88	-0.52	114	20100625
VM28-213	16	*G. tumida*	425-500	1	2.35	-0.19	114	20100625
VM28-213	16	*G. tumida*	425-500	1	1.94	0.94	143	20100625
VM28-213	16	*G. tumida*	425-500	1	2.35	0.25	138	20100625

VM28-213	12	*G. tumida*	425-500	1	2.15	0.69	124	20100625
VM28-213	12	*G. tumida*	425-500	1	1.95	0.95	156	20100625
VM28-213	12	*G. tumida*	425-500	1	2.32	0.38	157	20100625
VM28-213	12	*G. tumida*	425-500	1	2.52	0.06	115	20100625
VM28-213	8	*G. tumida*	425-500	1	2.11	-0.69	157	20100625
VM28-213	8	*G. tumida*	425-500	1	2.00	0.25	125	20100625
VM28-213	8	*G. tumida*	425-500	1	2.30	0.36	164	20100625
VM28-213	0	*G. tumida*	425-500	1	2.14	0.09	129	20100625
VM28-213	12	*G. tumida*	355-425	1	2.08	0.78	82	20100927
VM28-213	12	*G. tumida*	355-425	1	2.01	-0.07	58	20100927
VM28-213	12	*G. tumida*	355-425	1	2.20	0.36	95	20100927
VM28-213	12	*G. tumida*	355-425	1	2.38	0.13	90	20100927
VM28-213	12	*G. tumida*	355-425	1	1.81	0.37	69	20100927
VM28-213	12	*G. tumida*	355-425	1	2.11	0.39	79	20100927
VM28-213	12	*G. tumida*	355-425	1	2.17	0.01	75	20100927
VM28-213	12	*G. tumida*	355-425	1	2.09	1.77	51	20100927

VM28-213	92	*G. tumida*	425-500	1	2.24	0.04	130	MIS 5e	20120330
VM28-213	92	*G. tumida*	425-500	1	2.41	-0.30	112	MIS 5e	20120330
VM28-213	92	*G. tumida*	425-500	1	1.85	-0.70	131	MIS 5e	20120330
VM28-213	92	*G. tumida*	425-500	1	2.55	-0.38	129	MIS 5e	20120330
VM28-213	92	*G. tumida*	425-500	1	2.39	-0.34	131	MIS 5e	20120330
VM28-213	96	*G. tumida*	425-500	1	2.27	-0.92	105	MIS 5e	20120330
VM28-213	96	*G. tumida*	425-500	1	2.20	-0.27	104	MIS 5e	20120330
VM28-213	96	*G. tumida*	425-500	1	2.12	-0.42	114	MIS 5e	20120330
VM28-213	96	*G. tumida*	425-500	1	2.36	-0.31	110	MIS 5e	20120330
VM28-213	96	*G. tumida*	425-500	1	2.46	-0.92	96	MIS 5e	20120330
VM28-213	100	*G. tumida*	425-500	1	2.07	-0.09	121	MIS 5e	20120330
VM28-213	100	*G. tumida*	425-500	1	2.41	-0.09	127	MIS 5e	20120330
VM28-213	100	*G. tumida*	425-500	1	2.35	-0.61	124	MIS 5e	20120330
VM28-213	100	*G. tumida*	425-500	1	2.78	-0.84	120	MIS 5e	20120330
VM28-213	100	*G. tumida*	425-500	1	2.24	-0.88	152	MIS 5e	20120330
VM28-213	104	*G. tumida*	425-500	1	2.20	-0.74	136		20120330

VM28-213	104	*G. tumida*	425-500	1	2.46	-0.78	141	20120330
VM28-213	104	*G. tumida*	425-500	1	1.65	0.63	139	20120330
VM28-213	104	*G. tumida*	425-500	1	2.17	0.69	126	20120330
VM28-213	104	*G. tumida*	425-500	1	2.17	-0.47	140	20120330
VM28-213	108	*G. tumida*	425-500	1	1.89	0.21	99	20120330
VM28-213	108	*G. tumida*	425-500	1	1.99	-0.37	116	20120330
VM28-213	108	*G. tumida*	425-500	1	2.52	-1.12	125	20120330
VM28-213	108	*G. tumida*	425-500	1	2.49	-0.39	122	20120330
VM28-213	108	*G. tumida*	425-500	1	2.17	0.55	115	20120330
VM28-213	112	*G. tumida*	425-500	1	2.14	-0.37	132	20120330
VM28-213	112	*G. tumida*	425-500	1	2.32	-0.42	104	20120330
VM28-213	112	*G. tumida*	425-500	1	2.13	-0.25	128	20120330
VM28-213	112	*G. tumida*	425-500	1	2.10	0.64	135	20120330
VM28-213	112	*G. tumida*	425-500	1	1.88	-0.55	123	20120330
VM28-213	116	*G. tumida*	425-500	1	1.87	0.76	123	20120330
VM28-213	116	*G. tumida*	425-500	1	2.15	0.39	143	20120330

VM28-213	116	*G. tumida*	425-500	1	2.06	-0.15	116		20120330
VM28-213	116	*G. tumida*	425-500	1	2.10	0.74	112		20120330
VM28-213	116	*G. tumida*	425-500	1	2.16	-0.39	107		20120330
VM28-213	120	*G. tumida*	425-500	1	2.10	-0.05	131	MIS 6	20120402
VM28-213	120	*G. tumida*	425-500	1	2.02	-0.34	118	MIS 6	20120402
VM28-213	120	*G. tumida*	425-500	1	1.47	0.72	108	MIS 6	20120402
VM28-213	120	*G. tumida*	425-500	1	2.13	0.46	130	MIS 6	20120402
VM28-213	120	*G. tumida*	425-500	1	1.99	0.85	129	MIS 6	20120402
VM28-213	124	*G. tumida*	425-500	1	1.99	0.29	105	MIS 6	20120402
VM28-213	124	*G. tumida*	425-500	1	1.91	0.42	105	MIS 6	20120402
VM28-213	124	*G. tumida*	425-500	1	2.10	0.23	125	MIS 6	20120402
VM28-213	124	*G. tumida*	425-500	1	1.89	0.38	145	MIS 6	20120402
VM28-213	124	*G. tumida*	425-500	1	2.20	0.01	153	MIS 6	20120402
VM28-213	128	*G. tumida*	425-500	1	2.18	0.08	107	MIS 6	20120402
VM28-213	128	*G. tumida*	425-500	1	1.85	0.65	108	MIS 6	20120402
VM28-213	128	*G. tumida*	425-500	1	1.91	0.41	123	MIS 6	20120402

VM28-213	132	*G. tumida*	425-500	1	1.80	0.72	133	MIS 6	20120402
VM28-213	132	*G. tumida*	425-500	1	1.90	-0.04	121	MIS 6	20120402
VM28-213	132	*G. tumida*	425-500	1	2.07	0.03	131	MIS 6	20120402
VM28-213	132	*G. tumida*	425-500	1	2.05	0.28	135	MIS 6	20120402
VM28-213	132	*G. tumida*	425-500	1	2.04	-0.24	130	MIS 6	20120402
VM28-213	136	*G. tumida*	425-500	1	2.04	0.33	110	MIS 6	20120403
VM28-213	136	*G. tumida*	425-500	1	1.88	0.32	121	MIS 6	20120403
VM28-213	136	*G. tumida*	425-500	1	1.79	0.63	113	MIS 6	20120403
VM28-213	136	*G. tumida*	425-500	1	2.11	0.23	141	MIS 6	20120403
VM28-213	136	*G. tumida*	425-500	1	1.65	0.12	94	MIS 6	20120403
VM28-213	140	*G. tumida*	425-500	1	1.28	0.49	111	MIS 6	20120403
VM28-213	140	*G. tumida*	425-500	1	1.90	0.43	130	MIS 6	20120403
VM28-213	140	*G. tumida*	425-500	1	1.66	0.16	117	MIS 6	20120403
VM28-213	140	*G. tumida*	425-500	1	2.22	-0.18	133	MIS 6	20120403
VM28-213	140	*G. tumida*	425-500	1	2.26	1.05	112	MIS 6	20120403
VM28-213	144	*G. tumida*	425-500	1	1.70	0.59	146	MIS 6	20120403

VM28-213	144	*G. tumida*	425-500	1	1.65	0.71	120	MIS 6	20120403
VM28-213	144	*G. tumida*	425-500	1	2.03	0.15	119	MIS 6	20120403
VM28-213	144	*G. tumida*	425-500	1	2.11	-0.20	136	MIS 6	20120403
VM28-213	144	*G. tumida*	425-500	1	1.63	0.72	123	MIS 6	20120403
VM28-213	148	*G. tumida*	425-500	1	1.93	0.45	123	MIS 6	20120403
VM28-213	148	*G. tumida*	425-500	1	1.86	0.29	148	MIS 6	20120403
VM28-213	148	*G. tumida*	425-500	1	2.10	0.62	125	MIS 6	20120403
VM28-213	148	*G. tumida*	425-500	1	2.00	0.56	144	MIS 6	20120403
VM28-213	148	*G. tumida*	425-500	1	1.90	0.25	129	MIS 6	20120403
VM28-213	100	*G. ruber*	250-355	10	0.56	-1.99	119		20100414
VM28-213	96	*G. ruber*	250-355	10	1.01	-1.97	119		20100414
VM28-213	92	*G. ruber*	250-355	10	1.00	-1.89	131		20100414
VM28-213	88	*G. ruber*	250-355	10	1.12	-1.83	124		20100414
VM28-213	84	*G. ruber*	250-355	10	0.80	-1.77	146		20100414
VM28-213	80	*G. ruber*	250-355	10	0.79	-1.66	126		20100414
VM28-213	76	*G. ruber*	250-355	10	1.40	-1.49	128		20100414

VM28-213	72	*G. ruber*	250-355	10	0.80	-1.47	139	20100414
VM28-213	68	*G. ruber*	250-355	10	0.84	-1.55	151	20100414
VM28-213	64	*G. ruber*	250-355	10	1.02	-1.43	131	20100414
VM28-213	60	*G. ruber*	250-355	10	0.89	-1.39	134	20100414
VM28-213	56	*G. ruber*	250-355	10	0.85	-1.39	133	20100414
VM28-213	52	*G. ruber*	250-355	10	1.13	-1.35	129	20100414
VM28-213	48	*G. ruber*	250-355	10	1.46	-1.41	169	20100414
VM28-213	44	*G. ruber*	250-355	10	0.58	-1.57	160	20100414
VM28-213	40	*G. ruber*	250-355	10	1.20	-1.30	142	20100414
VM28-213	36	*G. ruber*	250-355	10	1.03	-1.21	137	20100414
VM28-213	32	*G. ruber*	250-355	10	0.95	-1.25	133	20100414
VM28-213	28	*G. ruber*	250-355	10	0.94	-1.24	170	20100414
VM28-213	24	*G. ruber*	250-355	10	0.56	-1.33	157	20100414
VM28-213	20	*G. ruber*	250-355	10	0.75	-1.23	153	20100414
VM28-213	16	*G. ruber*	250-355	10	0.86	-1.16	150	20100414
VM28-213	12	*G. ruber*	250-355	10	0.72	-1.50	161	20100414

VM28-213	8	*G. ruber*	250-355	10	0.95	-1.40	142	20100414
VM28-213	4	*G. ruber*	250-355	10	1.36	-1.82	176	20100414
VM28-213	0	*G. ruber*	250-355	10	0.95	-2.37	146	20100414
VM28-213	100	*G. ruber*	250-355	10	0.55	-1.70	115	20120229
VM28-213	100	*G. ruber*	250-355	10	0.67	-1.59	124	20120229
VM28-213	104	*G. ruber*	250-355	10	0.35	-1.80	111	20120229
VM28-213	104	*G. ruber*	250-355	10	0.44	-1.61	125	20120229
VM28-213	108	*G. ruber*	250-355	10	0.81	-1.48	141	20120229
VM28-213	108	*G. ruber*	250-355	10	0.71	-1.89	125	20120229
VM28-213	112	*G. ruber*	250-355	10	0.53	-1.61	123	20120229
VM28-213	112	*G. ruber*	250-355	10	0.53	-1.66	109	20120229
VM28-213	116	*G. ruber*	250-355	10	0.15	-1.72	134	20120229
VM28-213	116	*G. ruber*	250-355	10	0.24	-1.67	130	20120229
VM28-213	120	*G. ruber*	250-355	10	0.30	-1.67	125	20120229
VM28-213	120	*G. ruber*	250-355	10	-0.14	-1.87	121	20120229
VM28-213	124	*G. ruber*	250-355	10	0.36	-1.63	130	20120229

VM28-213	124	*G. ruber*	250-355	10	0.16	-1.27	126	20120229
VM28-213	128	*G. ruber*	250-355	10	0.54	-1.08	137	20120229
VM28-213	128	*G. ruber*	250-355	10	0.27	-1.46	129	20120229
VM28-213	132	*G. ruber*	250-355	10	0.59	-1.21	139	20120229
VM28-213	132	*G. ruber*	250-355	10	0.50	-0.92	113	20120229
VM28-213	136	*G. ruber*	250-355	10	0.27	-0.98	126	20120229
VM28-213	136	*G. ruber*	250-355	10	0.62	-1.04	128	20120229
VM28-213	140	*G. ruber*	250-355	10	0.34	-0.99	129	20120229
VM28-213	140	*G. ruber*	250-355	10	0.39	-1.11	146	20120229
VM28-213	144	*G. ruber*	250-355	10	0.28	-1.01	130	20120229
VM28-213	144	*G. ruber*	250-355	10	0.50	-1.10	128	20120229
VM28-213	148	*G. ruber*	250-355	10	0.56	-1.02	129	20120229
VM28-213	148	*G. ruber*	250-355	10	0.34	-1.12	115	20120229
VM28-213	152	*G. ruber*	250-355	10	0.11	-1.27	127	20120301
VM28-213	152	*G. ruber*	250-355	10	0.60	-1.33	119	20120301
VM28-213	156	*G. ruber*	250-355	10	0.16	-1.40	117	20120301

VM28-213	160	*G. ruber*	250-355	10	-0.10	-1.39	137	20120301
VM28-213	160	*G. ruber*	250-355	10	0.33	-1.47	125	20120301
VM28-213	164	*G. ruber*	250-355	10	0.06	-1.45	142	20120301
VM28-213	164	*G. ruber*	250-355	10	0.40	-1.36	115	20120301
VM28-213	168	*G. ruber*	250-355	10	0.43	-1.26	122	20120301
VM28-213	168	*G. ruber*	250-355	10	0.38	-1.27	118	20120301
VM28-213	172	*G. ruber*	250-355	10	0.75	-1.32	120	20120301
VM28-213	172	*G. ruber*	250-355	10	0.76	-1.31	125	20120301
VM28-213	176	*G. ruber*	250-355	10	0.50	-1.28	133	20120301
VM28-213	176	*G. ruber*	250-355	10	0.43	-1.33	112	20120301
VM28-213	180	*G. ruber*	250-355	10	0.00	-1.73	103	20120301
VM28-213	180	*G. ruber*	250-355	10	0.57	-1.79	107	20120301
VM28-213	184	*G. ruber*	250-355	10	0.83	-1.60	109	20120301
VM28-213	184	*G. ruber*	250-355	10	1.04	-1.78	134	20120301
VM28-213	188	*G. ruber*	250-355	10	0.50	-1.50	109	20120301
VM28-213	188	*G. ruber*	250-355	10	0.60	-1.67	111	20120301

VM28-213	192	*G. ruber*	250-355	10	0.87	-1.72	131	20120301
VM28-213	192	*G. ruber*	250-355	10	0.78	-1.71	129	20120301
VM28-213	196	*G. ruber*	250-355	10	0.45	-1.82	109	20120301
VM28-213	196	*G. ruber*	250-355	10	0.68	-1.64	118	20120301
VM28-213	200	*G. ruber*	250-355	10	0.62	-1.52	131	20120301
VM28-213	200	*G. ruber*	250-355	10	0.68	-1.53	134	20120301
VM28-213	8	*P. obliquiloculata*	355-425	1	1.15	-0.30	59	20110620
VM28-213	8	*P. obliquiloculata*	355-425	1	1.25	-0.16	49	20110620
VM28-213	12	*P. obliquiloculata*	355-425	1	1.43	0.43	40	20110620
VM28-213	16	*P. obliquiloculata*	355-425	1	1.44	0.04	47	20110620
VM28-213	16	*P. obliquiloculata*	355-425	1	1.06	-0.41	62	20110620
VM28-213	16	*P. obliquiloculata*	355-425	1	1.23	-0.56	56	20110620
VM28-213	8	*P. obliquiloculata*	355-425	1	1.56	-0.32	62	20110622
VM28-213	8	*P. obliquiloculata*	355-425	1	1.25	-0.36	45	20110622
RC12-117	0	*G. tumida*	425-500	1	2.40	0.21	141	20100617
RC12-117	0	*G. tumida*	425-500	1	2.27	0.55	128	20100617

RC12-117	0	*G. tumida*	425-500	1	2.25	-0.04	146		20100617
RC12-117	4	*G. tumida*	425-500	1	1.91	0.12	110	LGM	20100617
RC12-117	4	*G. tumida*	425-500	1	2.05	0.15	160	LGM	20100617
RC12-117	4	*G. tumida*	425-500	1	2.04	-0.77	139	LGM	20100617
RC12-117	8	*G. tumida*	425-500	1	2.03	-0.83	125	LGM	20100617
RC12-117	8	*G. tumida*	425-500	1	2.23	0.49	135	LGM	20100617
RC12-117	8	*G. tumida*	425-500	1	2.05	0.39	142	LGM	20100617
RC12-117	12	*G. tumida*	425-500	1	2.14	0.67	119	LGM	20100617
RC12-117	12	*G. tumida*	425-500	1	1.96	-0.59	142	LGM	20100617
RC12-117	12	*G. tumida*	425-500	1	2.05	0.38	148	LGM	20100617
RC12-117	16	*G. tumida*	425-500	1	2.22	0.62	144	LGM	20100617
RC12-117	16	*G. tumida*	425-500	1	2.22	0.56	132	LGM	20100617
RC12-117	16	*G. tumida*	425-500	1	2.24	0.69	121	LGM	20100617
RC12-117	20	*G. tumida*	425-500	1	2.14	-0.08	151	LGM	20100617
RC12-117	20	*G. tumida*	425-500	1	2.34	0.44	125	LGM	20100617
RC12-117	20	*G. tumida*	425-500	1	2.25	0.22	155	LGM	20100617

RC12-117	24	*G. tumida*	425-500	1	2.17	0.35	113	LGM	20100617
RC12-117	24	*G. tumida*	425-500	1	1.94	0.65	121	LGM	20100617
RC12-117	24	*G. tumida*	425-500	1	2.03	0.30	161	LGM	20100617
RC12-117	28	*G. tumida*	425-500	1	2.11	0.25	126	LGM	20100617
RC12-117	28	*G. tumida*	425-500	1	2.15	0.37	140	LGM	20100617
RC12-117	28	*G. tumida*	425-500	1	2.12	0.78	170	LGM	20100617
RC12-117	32	*G. tumida*	425-500	1	2.07	0.16	119	LGM	20100626
RC12-117	32	*G. tumida*	425-500	1	2.06	0.55	152	LGM	20100626
RC12-117	32	*G. tumida*	425-500	1	2.12	0.74	136	LGM	20100626
RC12-117	36	*G. tumida*	425-500	1	1.92	0.24	126	LGM	20100626
RC12-117	36	*G. tumida*	425-500	1	2.33	-0.06	135	LGM	20100626
RC12-117	36	*G. tumida*	425-500	1	2.31	0.19	119	LGM	20100626
RC12-117	40	*G. tumida*	425-500	1	2.37	0.06	103	LGM	20100626
RC12-117	40	*G. tumida*	425-500	1	2.32	0.28	132	LGM	20100626
RC12-117	40	*G. tumida*	425-500	1	2.34	0.48	113	LGM	20100626
RC12-117	44	*G. tumida*	425-500	1	2.03	0.33	136		20100626

RC12-117	44	*G. tumida*	425-500	1	2.12	0.47	142	20100626
RC12-117	44	*G. tumida*	425-500	1	2.41	0.50	132	20100626
RC12-117	48	*G. tumida*	425-500	1	2.33	0.72	116	20100626
RC12-117	48	*G. tumida*	425-500	1	2.27	0.59	147	20100626
RC12-117	48	*G. tumida*	425-500	1	1.96	-0.57	157	20100626
RC12-117	52	*G. tumida*	425-500	1	2.29	0.19	153	20100626
RC12-117	52	*G. tumida*	425-500	1	2.31	0.53	139	20100626
RC12-117	52	*G. tumida*	425-500	1	2.22	0.29	131	20100626
RC12-117	56	*G. tumida*	425-500	1	2.30	0.02	143	20100626
RC12-117	56	*G. tumida*	425-500	1	2.18	0.31	151	20100626
RC12-117	56	*G. tumida*	425-500	1	2.46	0.13	140	20100626
RC12-117	60	*G. tumida*	425-500	1	2.15	0.76	163	20100626
RC12-117	60	*G. tumida*	425-500	1	1.92	-0.15	115	20100626
RC12-117	0	*G. tumida*	425-500	1	2.19	0.13	156	20100626
RC12-117	0	*G. tumida*	425-500	1	2.44	0.39	123	20100626
RC12-117	0	*G. tumida*	425-500	1	2.11	0.22	156	20100626

RC12-117	4	*G. tumida*	425-500	1	2.14	0.29	153	LGM	20100626
RC12-117	4	*G. tumida*	425-500	1	2.23	0.25	131	LGM	20100626
RC12-117	4	*G. tumida*	425-500	1	2.03	0.17	144	LGM	20100626
RC12-117	8	*G. tumida*	425-500	1	2.04	0.30	121	LGM	20100626
RC12-117	8	*G. tumida*	425-500	1	2.09	0.45	147	LGM	20100626
RC12-117	20	*G. tumida*	425-500	1	2.19	-0.15	131	LGM	20100626
RC12-117	12	*G. tumida*	425-500	1	1.74	-0.78	130	LGM	20100626
RC12-117	12	*G. tumida*	425-500	1	2.21	0.02	150	LGM	20100626
RC12-117	12	*G. tumida*	425-500	1	2.40	0.72	138	LGM	20100626
RC12-117	4	*G. tumida*	425-500	1	2.34	0.31	128	LGM	20100926
RC12-117	4	*G. tumida*	425-500	1	1.92	0.37	108	LGM	20100926
RC12-117	4	*G. tumida*	425-500	1	1.94	0.18	133	LGM	20100926
RC12-117	4	*G. tumida*	425-500	1	2.21	0.20	157	LGM	20100926
RC12-117	4	*G. tumida*	355-425	1	1.92	-0.36	73	LGM	20100928
RC12-117	4	*G. tumida*	355-425	1	1.86	0.70	103	LGM	20100928
RC12-117	4	*G. tumida*	355-425	1	1.94	-0.16	113	LGM	20100928

RC12-117	4	*G. tumida*	355-425	1	2.15	0.46	94	LGM	20100928
RC12-117	4	*G. tumida*	355-425	1	2.34	0.26	82	LGM	20100928
RC12-117	4	*G. tumida*	355-425	1	2.11	-0.10	62	LGM	20100928
RC12-117	4	*G. tumida*	355-425	1	1.90	0.33	72	LGM	20100928
RC12-117	4	*G. tumida*	355-425	1	1.78	0.43	81	LGM	20100928
RC12-117	64	*G. tumida*	425-500	1	2.07	0.30	138		20101111
RC12-117	64	*G. tumida*	425-500	1	2.20	-0.13	153		20101111
RC12-117	64	*G. tumida*	425-500	1	2.48	-0.03	127		20101111
RC12-117	68	*G. tumida*	425-500	1	2.08	-0.01	132		20101111
RC12-117	68	*G. tumida*	425-500	1	2.22	0.22	130		20101111
RC12-117	68	*G. tumida*	425-500	1	2.40	0.12	110		20101111
RC12-117	72	*G. tumida*	425-500	1	2.25	-0.38	119		20101111
RC12-117	72	*G. tumida*	425-500	1	2.35	-0.20	130		20101111
RC12-117	72	*G. tumida*	425-500	1	2.42	-0.02	120		20101111
RC12-117	76	*G. tumida*	425-500	1	1.85	-0.51	98		20101111
RC12-117	76	*G. tumida*	425-500	1	2.32	0.40	106		20101111

RC12-117	76	*G. tumida*	425-500	1	2.18	0.32	130	20101111
RC12-117	80	*G. tumida*	425-500	1	2.00	0.31	117	20101111
RC12-117	80	*G. tumida*	425-500	1	2.41	-0.15	108	20101111
RC12-117	84	*G. tumida*	425-500	1	2.25	-0.44	137	20101111
RC12-117	84	*G. tumida*	425-500	1	1.83	0.05	101	20101111
RC12-117	84	*G. tumida*	425-500	1	2.28	-0.20	129	20101111
RC12-117	88	*G. tumida*	425-500	1	2.48	-0.04	128	20101111
RC12-117	88	*G. tumida*	425-500	1	2.39	0.05	143	20101111
RC12-117	88	*G. tumida*	425-500	1	2.16	-0.08	107	20101111
RC12-117	92	*G. tumida*	425-500	1	2.29	0.10	137	20101111
RC12-117	92	*G. tumida*	425-500	1	2.20	0.34	155	20101111
RC12-117	92	*G. tumida*	425-500	1	1.81	0.08	150	20101111
RC12-117	96	*G. tumida*	425-500	1	2.10	0.29	130	20101112
RC12-117	96	*G. tumida*	425-500	1	1.81	0.05	127	20101112
RC12-117	96	*G. tumida*	425-500	1	2.10	0.13	124	20101112
RC12-117	100	*G. tumida*	425-500	1	1.54	0.56	128	20101112

RC12-117	100	*G. tumida*	425-500	1	2.04	0.16	109		20101112
RC12-117	0	*G. ruber*	250-355	10	0.75	-2.31	122		21010714
RC12-117	4	*G. ruber*	250-355	10	0.28	-2.21	123	LGM	21010714
RC12-117	8	*G. ruber*	250-355	10	0.16	-2.24	122	LGM	21010714
RC12-117	12	*G. ruber*	250-355	10	0.23	-2.39	115	LGM	21010714
RC12-117	16	*G. ruber*	250-355	10	0.76	-2.17	115	LGM	21010714
RC12-117	20	*G. ruber*	250-355	10	0.25	-1.85	124	LGM	21010714
RC12-117	24	*G. ruber*	250-355	10	0.06	-1.68	117	LGM	21010714
RC12-117	28	*G. ruber*	250-355	10	0.40	-1.39	115	LGM	21010714
RC12-117	32	*G. ruber*	250-355	10	0.08	-1.48	124	LGM	21010714
RC12-117	36	*G. ruber*	250-355	10	1.04	-1.19	137	LGM	21010714
RC12-117	40	*G. ruber*	250-355	10	0.84	-1.08	126	LGM	21010714
RC12-117	44	*G. ruber*	250-355	10	0.50	-1.15	111		21010714
RC12-117	48	*G. ruber*	250-355	10	0.17	-1.21	114		21010714
RC12-117	52	*G. ruber*	250-355	10	0.23	-1.20	115		21010714
RC12-117	56	*G. ruber*	250-355	10	0.85	-1.23	113		21010714

RC12-117	60	*G. ruber*	250-355	10	0.28	-1.18	112	21010714
RC12-117	64	*G. ruber*	250-355	10	0.13	-1.30	113	21010714
RC12-117	68	*G. ruber*	250-355	10	0.36	-1.30	116	21010714
RC12-117	72	*G. ruber*	250-355	10	0.42	-1.14	125	21010714
RC12-117	76	*G. ruber*	250-355	10	0.32	-1.27	128	21010714
RC12-117	80	*G. ruber*	250-355	10	0.89	-1.23	124	21010714
RC12-117	84	*G. ruber*	250-355	10	0.79	-1.38	115	21010714
RC12-117	88	*G. ruber*	250-355	10	0.67	-1.44	120	21010714
RC12-117	92	*G. ruber*	250-355	10	0.95	-1.23	115	21010714
RC12-117	96	*G. ruber*	250-355	10	0.55	-1.41	114	21010714
RC12-117	100	*G. ruber*	250-355	10	0.69	-1.53	131	21010714
RC12-117	64	*G. ruber*	250-355	10	0.31	-1.24	116	20101112
RC12-117	64	*G. ruber*	250-355	10	0.66	-1.15	124	20101112
RC12-117	68	*G. ruber*	250-355	10	0.92	-1.15	135	20101112
RC12-117	98	*G. ruber*	250-355	10	0.76	-1.25	133	20101112
RC12-117	72	*G. ruber*	250-355	10	0.55	-1.17	114	20101112

RC12-117	72	*G. ruber*	250-355	10	0.88	-1.17	136	20101112
RC12-117	76	*G. ruber*	250-355	10	0.81	-1.27	139	20101112
RC12-117	76	*G. ruber*	250-355	10	0.58	-1.27	127	20101112
RC12-117	80	*G. ruber*	250-355	10	1.06	-1.28	133	20101112
RC12-117	80	*G. ruber*	250-355	10	0.16	-1.41	103	20101112
RC12-117	84	*G. ruber*	250-355	10	0.91	-1.33	130	20101112
RC12-117	84	*G. ruber*	250-355	10	0.68	-1.42	116	20101112
RC12-117	88	*G. ruber*	250-355	10	0.67	-1.33	126	20101112
RC12-117	88	*G. ruber*	250-355	10	0.40	-1.45	122	20101112
RC12-117	92	*G. ruber*	250-355	10	0.26	-1.41	120	20101112
RC12-117	92	*G. ruber*	250-355	10	0.81	-1.38	133	20101112
RC12-117	96	*G. ruber*	250-355	10	0.39	-1.59	117	20101112
RC12-117	96	*G. ruber*	250-355	10	0.59	-1.41	133	20101112
RC12-117	100	*G. ruber*	250-355	10	0.69	-1.52	109	20101112
RC12-117	100	*G. ruber*	250-355	10	0.32	-1.52	107	20101112
VM34-2	0	*G. tumida*	425-500	1	1.74	-0.79	139	20100423

VM34-2	0	*G. tumida*	425-500	1	1.85	0.56	143		20100423
VM34-2	0	*G. tumida*	425-500	1	1.87	0.70	132		20100423
VM34-2	0	*G. tumida*	425-500	1	1.97	0.04	140		20100423
VM34-2	0	*G. tumida*	425-500	1	2.36	0.28	154		20100423
VM34-2	0	*G. tumida*	425-500	1	1.90	-0.49	146		20100423
VM34-2	8	*G. tumida*	425-500	1	2.00	-0.56	126		20100509
VM34-2	4	*G. tumida*	425-500	1	2.05	1.01	118		20100509
VM34-2	4	*G. tumida*	425-500	1	2.30	0.75	155		20100509
VM34-2	4	*G. tumida*	425-500	1	2.06	0.52	112		20100509
VM34-2	32	*G. tumida*	425-500	1	2.16	1.13	140		20100509
VM34-2	32	*G. tumida*	425-500	1	2.19	0.40	111		20100509
VM34-2	32	*G. tumida*	425-500	1	1.73	0.48	163		20100509
VM34-2	28	*G. tumida*	425-500	1	2.10	0.73	134	LGM	20100509
VM34-2	28	*G. tumida*	425-500	1	2.04	0.90	161	LGM	20100509
VM34-2	28	*G. tumida*	425-500	1	2.16	0.48	144	LGM	20100509
VM34-2	24	*G. tumida*	425-500	1	2.33	0.85	151		20100509

VM34-2	24	*G. tumida*	425-500	1	1.89	0.43	138	20100509
VM34-2	24	*G. tumida*	425-500	1	2.01	0.59	112	20100509
VM34-2	20	*G. tumida*	425-500	1	2.21	0.96	116	20100509
VM34-2	20	*G. tumida*	425-500	1	2.10	0.77	143	20100509
VM34-2	20	*G. tumida*	425-500	1	2.40	0.33	135	20100509
VM34-2	16	*G. tumida*	425-500	1	2.41	0.53	164	20100509
VM34-2	16	*G. tumida*	425-500	1	2.18	0.18	133	20100509
VM34-2	16	*G. tumida*	425-500	1	1.03	0.01	109	20100509
VM34-2	12	*G. tumida*	425-500	1	2.29	0.52	144	20100509
VM34-2	12	*G. tumida*	425-500	1	2.43	0.64	142	20100509
VM34-2	12	*G. tumida*	425-500	1	1.98	-0.17	157	20100509
VM34-2	8	*G. tumida*	425-500	1	2.35	0.21	113	20100509
VM34-2	64	*G. tumida*	425-500	1	2.31	0.76	148	20100512
VM34-2	64	*G. tumida*	425-500	1	2.15	0.26	157	20100512
VM34-2	64	*G. tumida*	425-500	1	1.81	0.26	103	20100512
VM34-2	60	*G. tumida*	425-500	1	2.21	-0.10	171	20100512

VM34-2	60	*G. tumida*	425-500	1	2.50	0.31	147	20100512
VM34-2	60	*G. tumida*	425-500	1	2.29	0.10	162	20100512
VM34-2	56	*G. tumida*	425-500	1	2.21	0.20	149	20100512
VM34-2	56	*G. tumida*	425-500	1	1.81	-0.23	152	20100512
VM34-2	56	*G. tumida*	425-500	1	2.34	0.52	162	20100512
VM34-2	52	*G. tumida*	425-500	1	2.16	0.34	146	20100512
VM34-2	52	*G. tumida*	425-500	1	1.90	-0.16	127	20100512
VM34-2	52	*G. tumida*	425-500	1	2.41	0.91	159	20100512
VM34-2	48	*G. tumida*	425-500	1	2.23	0.28	124	20100512
VM34-2	48	*G. tumida*	425-500	1	2.26	0.50	146	20100512
VM34-2	48	*G. tumida*	425-500	1	1.87	0.19	167	20100512
VM34-2	44	*G. tumida*	425-500	1	2.29	0.60	108	20100512
VM34-2	44	*G. tumida*	425-500	1	2.24	0.48	114	20100512
VM34-2	44	*G. tumida*	425-500	1	2.47	1.05	146	20100512
VM34-2	40	*G. tumida*	425-500	1	1.78	0.70	117	20100512
VM34-2	40	*G. tumida*	425-500	1	2.07	0.39	157	20100512

VM34-2	40	*G. tumida*	425-500	1	2.40	0.24	151		20100512
VM34-2	36	*G. tumida*	425-500	1	2.33	0.77	146		20100512
VM34-2	36	*G. tumida*	425-500	1	2.30	0.28	139		20100512
VM34-2	36	*G. tumida*	425-500	1	2.00	0.54	168		20100512
VM34-2	32	*G. tumida*	425-500	1	2.34	0.17	147		20101221
VM34-2	32	*G. tumida*	425-500	1	2.48	0.53	132		20101221
VM34-2	32	*G. tumida*	425-500	1	2.43	0.37	114		20101221
VM34-2	32	*G. tumida*	425-500	1	1.71	0.20	95		20101221
VM34-2	28	*G. tumida*	355-425	1	2.01	0.68	74	LGM	20110606
VM34-2	28	*G. tumida*	355-425	1	2.12	1.28	73	LGM	20110606
VM34-2	24	*G. tumida*	425-500	1	2.17	0.95	105		20110606
VM34-2	24	*G. tumida*	425-500	1	1.81	0.51	160		20110606
VM34-2	24	*G. tumida*	355-425	1	2.53	0.64	99		20110606
VM34-2	24	*G. tumida*	355-425	1	2.33	0.34	94		20110606
VM34-2	24	*G. tumida*	355-425	1	2.29	0.59	94		20110606
VM34-2	24	*G. tumida*	355-425	1	2.16	0.48	60		20110606

VM34-2	24	*G. tumida*	250-355	1	2.06	0.93	59		20110606
VM34-2	28	*G. tumida*	425-500	1	2.33	0.35	107	LGM	20110606
VM34-2	28	*G. tumida*	355-425	1	2.06	0.94	73	LGM	20110606
VM34-2	28	*G. tumida*	355-425	1	1.90	0.71	81	LGM	20110606
VM34-2	16	*G. ruber*	250-355	10	0.87	-1.47	174		20100426
VM34-2	12	*G. ruber*	250-355	10	0.57	-1.78	144		20100426
VM34-2	8	*G. ruber*	250-355	10	0.30	-2.13	137		20100426
VM34-2	4	*G. ruber*	250-355	10	0.55	-1.81	141		20100426
VM34-2	0	*G. ruber*	250-355	10	0.51	-1.79	142		20100426
VM34-2	60	*G. ruber*	250-355	10	0.34	-1.50	149		20100503
VM34-2	56	*G. ruber*	250-355	10	1.05	-1.17	147		20100503
VM34-2	52	*G. ruber*	250-355	10	0.70	-1.26	152		20100503
VM34-2	48	*G. ruber*	250-355	10	0.36	-1.38	115		20100503
VM34-2	44	*G. ruber*	250-355	10	0.94	-1.07	164		20100503
VM34-2	40	*G. ruber*	250-355	10	0.50	-1.14	137		20100503
VM34-2	36	*G. ruber*	250-355	10	0.87	-0.93	163		20100503

VM34-2	32	*G. ruber*	250-355	10	0.58	-1.11	156		20100503
VM34-2	28	*G. ruber*	250-355	10	0.73	-1.06	160	LGM	20100503
VM34-2	24	*G. ruber*	250-355	10	0.44	-1.18	159		20100503
VM34-2	20	*G. ruber*	250-355	10	0.34	-1.84	130		20100503
VM34-2	60	*G. ruber*	250-355	10	0.62	-1.10	136		20120321
VM34-2	60	*G. ruber*	250-355	10	-0.14	-1.43	137		20120321
VM34-2	64	*G. ruber*	250-355	10	0.40	-1.25	141		20120321
VM34-2	64	*G. ruber*	250-355	10	0.38	-1.43	136		20120321
VM34-2	68	*G. ruber*	250-355	10	0.19	-1.38	135		20120321
VM34-2	68	*G. ruber*	250-355	10	-0.12	-1.63	127		20120321
VM34-2	72	*G. ruber*	250-355	10	-0.61	-1.49	133		20120321
VM34-2	72	*G. ruber*	250-355	10	0.31	-1.25	146		20120321
VM34-2	76	*G. ruber*	250-355	10	0.27	-1.34	134		20120321
VM34-2	76	*G. ruber*	250-355	10	0.02	-1.21	151		20120321
VM34-2	80	*G. ruber*	250-355	10	0.73	-1.20	136		20120321
VM34-2	80	*G. ruber*	250-355	10	0.75	-1.06	128		20120321

VM34-2	84	*G. ruber*	250-355	10	-0.43	-1.29	113	20120321
VM34-2	84	*G. ruber*	250-355	10	0.30	-1.02	117	20120321
VM34-2	88	*G. ruber*	250-355	10	0.87	-1.25	137	20120321
VM34-2	88	*G. ruber*	250-355	10	0.16	-1.26	130	20120321
VM34-2	92	*G. ruber*	250-355	10	0.89	-1.46	122	20120321
VM34-2	92	*G. ruber*	250-355	10	0.54	-1.35	134	20120321
VM34-2	96	*G. ruber*	250-355	10	0.41	-1.50	134	20120321
VM34-2	96	*G. ruber*	250-355	10	0.62	-1.40	119	20120321
VM34-2	100	*G. ruber*	250-355	10	0.04	-1.54	129	20120321
VM34-2	100	*G. ruber*	250-355	10	0.87	-1.69	135	20120321
VM34-2TW	2	*G. ruber*	250-355	10	0.15	-2.05	125	20100409
VM34-2TW	0	*G. ruber*	250-355	10	0.72	-2.03	145	20100409

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