Supplement of

World Atlas of late Quaternary Foraminiferal Oxygen and Carbon Isotope Ratios

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### S1: Structure of netCDF files containing stable isotope data

#### DIMENSIONS

| Name       | Type | Description |
|------------|------|-------------|
| Length     | int  | Total number of rows/values for each proxy including NaNs |
| Character  | int  | Maximum number of characters needed for character array representing comments on individual rows |

#### VARIABLES

| Name       | Type      | Dimensions | Description |
|------------|-----------|------------|-------------|
| Depth      | double    | Length     | Sample depth in m |
| Sample Thickness | double   | Length     | Thickness of sample in m |
| Age        | double    | Length     | Age in kyrs |
| d13C       | double    | Length     | $\delta^{13}C$ in VPDB |
| d18O       | double    | Length     | $\delta^{18}O$ in VPDB |
| d13C Err   | double    | Length     | Error (SD) of $\delta^{13}C$ in %o |
| d18O Err   | double    | Length     | Error (SD) of $\delta^{18}O$ in %o |
| d13C Corr  | double    | Length     | Corrected $\delta^{13}C$ in VPDB |
| d18O Corr  | double    | Length     | Corrected $\delta^{18}O$ in VPDB |
| Use Flag   | double    | Length     | Flag indicating inclusion (1) or exclusion (0) of values from specific depths for further analysis |
| Comment    | char      | Length, Characters | Char array containing comments on individual sample depths |

#### GLOBAL ATTRIBUTES

| Name       | Type      | Description |
|------------|-----------|-------------|
| Core       | char      | Core label, cannot contain / or \ |
| Species    | char      | Species name |
| Longitude  | double    | Longitude (in decimal notation) |
| Latitude   | double    | Latitude (in decimal notation) |
| Water Depth| double    | Water depth in m |
| Proxy Category | char  | Identifier set by PaleoDataView during import to Foraminiferal Isotopes |
| Device     | char      | Coring device |
| Record Type| char      | Loose habitat identifier to distinguish frequently used species, sp = shallow planktic, sd = deep planktic, sb = shallow benthic, sd = deep benthic |
| Laboratory | char      | Laboratory where measurements have been done |
| E-Paper    | char      | Optional path to pdf file on your harddisk, not set in this data base |
| Comment    | char      | General comment |
| Data Source| char      | Source of data, i.e. doi |
| Reference  | char      | Reference |
| Oxygen Use Flag | double | Flag indicating inclusion (1) or exclusion (0) of the record into further analysis |
| Carbon Use Flag | double | Flag indicating inclusion (1) or exclusion (0) of the record into further analysis |
| O-Correction| double   | Offset to be added to oxygen isotope values, generally set to 0 here |
| C-Correction| double   | Offset to be added to carbon isotope values, generally set to 0 here |
| O-Correction Justification | char | Justification for correction of oxygen isotope values (i.e. lab offset or vital effect) |
| C-Correction Justification | char | Justification for correction of carbon isotope values (i.e. lab offset or vital effect) |
| Importer   | char      | Name of Importer |
| Optional   | char      | String that can contain user-defined parameter value pairs |
S2: Structure of netCDF files containing age data

**DIMENSIONS**

| Name              | Type | Description                                                                 |
|-------------------|------|------------------------------------------------------------------------------|
| Length            | int  | Total number of rows/values for each Age value                              |
| Label Characters  | int  | Number of characters needed for laboratory label of the dating              |
| Type Characters   | int  | Number of characters needed for type label of the dating (i.e. AMS)         |
| Comment Characters| int  | Number of characters needed for character array representing comments on individual rows |

**VARIABLES**

| Name                | Type   | Dimensions | Description                                                                 |
|---------------------|--------|------------|-----------------------------------------------------------------------------|
| Depth               | double | Length     | Sample depth in m                                                           |
| Sample Thickness    | double | Length     | Thickness of sample in m                                                    |
| Label               | char   | Label Characters | Lab ID of dated sample                                                      |
| Type                | char   | Type Characters | Type specifier of age determination, i.e. AMS for radiocarbon age         |
| Age dated           | double | Length     | Raw radiocarbon age                                                         |
| Age +Error          | double | Length     | 1 Sigma radiocarbon age error (+)                                           |
| Age -Error          | double | Length     | 1 Sigma radiocarbon age error (-)                                           |
| Reservoir Age       | double | Length     | Total reservoir age                                                         |
| Reservoir Age Error | double | Length     | Reservoir age error                                                         |
| Cal Age             | double | Length     | Calendar age                                                                |
| Cal Age Min         | double | Length     | 95% Calendar age uncertainty (-)                                            |
| Cal Age Max         | double | Length     | 95% Calendar age uncertainty (+)                                            |
| Use Flag            | double | Length     | Flag indicating inclusion (1) or exclusion (0) of values from specific depths for further analysis |
| Comment             | char   | Length, Comment Characters | Char array containing comments on individual sample depths |

**GLOBAL ATTRIBUTES**

| Name               | Type | Description                                                                 |
|--------------------|------|------------------------------------------------------------------------------|
| Core               | char | Core label, cannot contain / or \                                            |
| Parameter          | char | Parameter name                                                              |
| Longitude          | double| Longitude (in decimal notation)                                            |
| Latitude           | double| Latitude (in decimal notation)                                             |
| Water Depth        | double| Water depth in m                                                           |
| Proxy Category     | char | Identifier set by PaleoDataView during import to Age                        |
| Device             | char | Coring device                                                               |
| Laboratory         | char | Laboratory where measurements have been done                               |
| E-Paper            | char | Optional path to pdf on your harddisk, not set in this data base            |
| Comment            | char | General comment                                                             |
| Data Source        | char | Source of data, i.e. doi                                                   |
| Reference          | char | Reference                                                                   |
| Use Flag           | char | Flag indicating inclusion (1) or exclusion (0) of the record into further analysis |
| Importer           | char | Name of Importer                                                            |
| Basin              | char | Basin name                                                                  |
| Filename           | char | Filename (*.age)                                                            |
| Optional           | char | String that can contain user-defined parameter value pairs                  |
### S3: Previously unpublished or unavailable stable isotope records included in the data base

| Core     | Latitude | Longitude | Depth (m) | Species                                      | Previously unavailable | Contributing PI/Reference |
|----------|----------|-----------|-----------|----------------------------------------------|------------------------|---------------------------|
| BS88-6-10B | -30.655  | 66.197    | 498       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-12  | -31.442  | 66.228    | 395       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-13  | -30.856  | 65.411    | 643       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-14  | -30.593  | 65.52     | 377       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-16  | -30.99   | 65.379    | 798       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-17B | -30.992  | 65.32     | 997       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-18  | -30.453  | 65.376    | 796       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-21  | -29.533  | 65.576    | 598       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-23  | -29.535  | 65.459    | 996       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-3   | -31.066  | 67.41     | 624       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-4   | -31.071  | 67.366    | 626       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-6   | -30.895  | 67.079    | 668       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-7   | -30.872  | 67.071    | 688       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| BS88-6-8   | -29.683  | 66.452    | 299       | Neogloboquadrina pachyderma sin              | x x                    | Horwege, Spielhagen (unpublished) |
| GeoB10038-4| -5.938   | 103.246   | 1891      | Cibicoides waellerstorfi                     | x                      | Mohrati (unpublished)       |
| GeoB10038-4| -5.938   | 103.246   | 1891      | Globigerinoides ruber sensu stricto          | x                      | Mohrati (unpublished)       |
| GeoB10038-4| -5.938   | 103.246   | 1891      | Neogloboquadrina dutertrei                  | x x                    | Mohrati (unpublished)       |
| GeoB10038-4| -5.938   | 103.246   | 1891      | Neogloboquadrina dutertrei                  | x                      | Mohrati (unpublished)       |
| GeoB10053-7| -8.677   | 112.872   | 1372      | Globigerinoides bulloides                   | x                      | Mohrati (unpublished)       |
| GeoB10053-7| -8.677   | 112.872   | 1372      | Globigerinoides ruber sensu stricto         | x                      | Mohrati (unpublished)       |
| GeoB10069-3| -9.595   | 120.917   | 1250      | Globigerinoides ruber sensu stricto         | x                      | Mohrati (unpublished)       |
| GeoB1008-3 | -6.582   | 10.319    | 3124      | Cibicoides waellerstorfi                     | x x                    | Govin (unpublished)         |
| GeoB1008-3 | -6.582   | 10.319    | 3124      | Cibicoides waellerstorfi                     | x x                    | Govin (unpublished)         |
| GeoB1016-3 | -11.771  | 11.682    | 3411      | Cibicoides waellerstorfi                     | x x                    | Govin (unpublished)         |
| GeoB1016-3 | -11.771  | 11.682    | 3411      | Cibicoides waellerstorfi                     | x x                    | Govin (unpublished)         |
| GeoB12605-3| -5.573   | 39.108    | 195       | Globigerinoides ruber sensu stricto         | x                      | Kuhnert (unpublished)       |
| GeoB12605-3| -5.573   | 39.108    | 195       | Neogloboquadrina dutertrei                  | x                      | Kuhnert (unpublished)       |
| GeoB13825-2| -37.279  | -53.68    | 1233      | Angulogerina angulosa                       | x x                    | Bickert (unpublished)       |
| GeoB16202-2| -1.908   | -41.592   | 2248      | Trilobatus sacculifer                        | x x                    | Freymüller (2013)           |
| GeoB16202-2| -1.908   | -41.592   | 2248      | Globigerinoides ruber pink                   | x x                    | Mulitza, Chiesi (unpublished) |
| GeoB16202-2| -1.908   | -41.592   | 2248      | Neogloboquadrina dutertrei                  | x                      | Huppenza (2014)             |
| GeoB16202-2| -1.908   | -41.592   | 2248      | Uvigerina persicina                         | x                      | Mulitza, Mackensen (unpublished) |
| GeoB1624-1  | 6.656    | -52.083   | 2510      | Cibicoides waellerstorfi                     | x                      | > 3.38 m: Mulitza (unpublished) |
| GeoB1624-1  | 6.656    | -52.083   | 2510      | Neogloboquadrina dutertrei                  | x x                    | Krummee (2015)             |
| GeoB1701-4  | 1.95     | 3.552     | 4162      | Globigerinoides ruber pink                   | x x                    | Mulitza (unpublished)       |
| GeoB1704-4  | -19.407  | 11.612    | 398       | Globorotalia inflata                        | x                      | Mollenhauer (unpublished)   |
| GeoB1712-4  | -23.257  | 12.808    | 998       | Globigerina bulloides                       | x x                    | Mollenhauer (unpublished)   |
| GeoB2019-1  | -36.06   | -8.778    | 3825      | Globigerina bulloides                       | x                      | Mulitza (unpublished)       |
| GeoB2021-5  | -36.833  | -14.403   | 3575      | Globigerina bulloides                       | x                      | Mulitza (unpublished)       |
| GeoB2104-3  | -27.285  | -46.373   | 1503      | Cibicoides spp.                             | x x                    | Mulitza (unpublished)       |
| GeoB2104-3  | -27.285  | -46.373   | 1503      | Uvigerina spp.                              | x x                    | Steinborn (2003)            |
| GeoB2105-1  | -26.742  | -46.742   | 200       | Uvigerina spp.                              | x x                    | Steinborn (2003)            |
| GeoB2106-3  | -27.102  | -46.515   | 497       | Uvigerina spp.                              | x x                    | Steinborn (2003)            |
| GeoB2107-3  | -27.177  | -46.452   | 1048      | Cibicoides spp.                             | x                      | Rühlemann (unpublished)     |
| GeoB82107-3 | -27.177 | -46.452 | 1048 | Globigerinoides ruber white | x | Rühlemann (unpublished) |
| GeoB82126-3 | -21.272 | -38.932 | 2539 | Uvigerina peregrina | x | Govin (unpublished) |
| GeoB82126-3 | -21.272 | -38.932 | 2539 | Uvigerina peregrina | x | Govin (unpublished) |
| GeoB3914-2  | -38.227 | -2.722  | 2463 | Cibicidoides wuellerstorfi | x | Govin (unpublished) |
| GeoB4420-2  | 16.473  | -46.463 | 2767 | Trilobatus sacculifer | x | Mulitza (unpublished) |
| GeoB4905-4  | 2.5     | 9.39    | 1328 | Trilobatus sacculifer | x | Zimmermann (2013) |
| GeoB85901-2 | 36.38   | -7.071  | 574  | Globigerinoides ruber white | x | Rühlemann (unpublished) |
| GeoB6211-2  | -32.505 | -50.243 | 657  | Uvigerina sp. | x | Steinborn (2003) |
| GeoB6211-2  | -32.505 | -50.243 | 657  | Uvigerina bifurcata | x | d18O < 0.92 and > 5.46 m, d13C Chiessi (unpublished) |
| GeoB6211-2  | -32.505 | -50.243 | 657  | Uvigerina peregrina | x | Chiessi (unpublished) |
| GeoB6212-1  | -32.687 | -50.109 | 1010 | Uvigerina peregrina | x | Mulitza, Chiessi (unpublished) |
| GeoB6213-2  | -33.169 | -49.561 | 1502 | Uvigerina spp. | x | Chiessi, Mulitza (unpublished) |
| GeoB8340-2  | -44.916 | -58.096 | 2785 | Globorotalia inflata | x | Mulitza (unpublished) |
| GeoB6340-2  | -44.916 | -58.096 | 2785 | Uvigerina spp. | x | Mulitza (unpublished) |
| GeoB6403-3  | -40.013 | -23.365 | 4227 | Globigerina bulloides | x | Donner (unpublished) |
| GeoB6405-6  | -42     | -21.853 | 3862 | Globigerina bulloides | x | Donner (unpublished) |
| GeoB6408-4  | -43.614 | -20.441 | 3797 | Cibicidoides wuellerstorfi | x | Donner (unpublished) |
| GeoB6408-4  | -43.614 | -20.441 | 3797 | Globigerina bulloides | x | Donner (unpublished) |
| GeoB6421-2  | -44.254 | -17.647 | 3475 | Globigerinoides bulloides | x | Donner (unpublished) |
| GeoB6421-2  | -36.488 | -22.445 | 4220 | Globigerinoides bulloides | x | Donner (unpublished) |
| GeoB6425-2  | -33.825 | -23.587 | 4352 | Cibicidoides wuellerstorfi | x | Donner (unpublished) |
| GeoB6910-2  | -25.003 | -44.427 | 1187 | Uvigerina spp. | x | Steinborn (2003) |
| GeoB6914-2  | -26.342 | -43.547 | 2298 | Uvigerina spp. | x | Steinborn (2003) |
| GeoB7010-2  | 8.57    | -53.205 | 2549 | Cibicidoides wuellerstorfi | x | Kuhr (2011) |
| GeoB8453-1  | -25.473 | 13.608  | 505  | Oridorsalis umbonatus | x | Rathmann, Mulitza (unpublished) |
| GeoB8453-1  | -25.473 | 13.608  | 505  | Neogloboquadrina pachyderma sin | x | Rathmann, Mulitza (unpublished) |
| GeoB8453-1  | -25.473 | 13.608  | 505  | Globigerinoides bulloides | x | Rathmann, Mulitza (unpublished) |
| GeoB9501-5  | 16.841  | -16.733 | 323  | Globigerinoides ruber pink | x | Mulitza-Kuhnert (unpublished) |
| GeoB9503-5  | 16.07   | -16.65  | 50   | Globigerinoides ruber pink | x | Mulitza (unpublished) |
| GeoB9506-1  | 15.61   | -18.35  | 2956 | Cibicidoides wuellerstorfi | x | Mulitza (unpublished) |
| GeoB9506-1  | 15.61   | -18.35  | 2956 | Melonis barleeanum | x | Mulitza (unpublished) |
| GeoB9508-5  | 15.498  | -17.948 | 2384 | Globigerinoides ruber pink | x | Johnstone (unpublished) |
| GeoB9510-1  | 15.417  | -17.653 | 1566 | Cibicidoides pachyderma | x | Lynch-Sieglitz (unpublished) |
| GeoB9510-1  | 15.417  | -17.653 | 1566 | Planulina wuellerstorfi | x | Lynch-Sieglitz (unpublished) |
| GeoB9512-5  | 15.337  | -17.367 | 793  | Cibicidoides pachyderma | x | Lynch-Sieglitz (unpublished) |
| GeoB9512-5  | 15.337  | -17.367 | 793  | Planulina wuellerstorfi | x | Lynch-Sieglitz (unpublished) |
| GeoB9513-3  | 15.319  | -17.294 | 494  | Cibicidoides pachyderma | x | Mulitza (unpublished) |
| GeoB9516-5  | 13.673  | -18.419 | 3504 | Cibicidoides wuellerstorfi | x | Mulitza (unpublished) |
| GeoB9528-3  | 9.166   | -17.663 | 3057 | Globigerinoides ruber pink | x | GimeNeek (2010) |
| GeoB9532-2  | 8.95    | -14.89  | 317  | Globorotalia inflata | x | Huang, Mulitza (unpublished) |
| GeoB9532-2  | 8.95    | -14.89  | 317  | Globorotalia inflata | x | Huang, Mulitza (unpublished) |
| GeoB9532-2  | 8.95    | -14.89  | 317  | Planulina arimensis | x | Huang, Mulitza (unpublished) |
| GeoB9532-2  | 8.95    | -14.89  | 317  | Globigerinoides ruber pink | x | Huang, Mulitza (unpublished) |
| GeoB9533-2  | 8.93    | -14.91  | 384  | Planulina arimensis | x | Huang, Mulitza (unpublished) |
| GeoB9533-2  | 8.93    | -14.91  | 384  | Globorotalia inflata | x | Huang, Mulitza (unpublished) |
| GeoB9533-2  | 8.93    | -14.91  | 384  | Globorotalia inflata | x | Huang, Mulitza (unpublished) |
| Core       | Latitude | Longitude | Depth (m) | Species                                     | Previously unavailable | Contributing PI/Reference |
|------------|----------|-----------|-----------|---------------------------------------------|------------------------|---------------------------|
| GeoB9533-2 | 8.93     | -14.91    | 384       | Globigerinoides ruber pink                   | x                      | Huang, Mulitza (unpublished) |
| GeoB9533-2 | 8.93     | -14.91    | 384       | Uvigerina peregrina                          | x                      | Huang, Mulitza (unpublished) |
| GeoB9534-5 | 8.9      | -14.94    | 492       | Globorotalia inflata                         | x                      | Huang, Mulitza (unpublished) |
| GeoB9534-5 | 8.9      | -14.94    | 492       | Globobulimina tumida                         | x                      | Huang, Mulitza (unpublished) |
| GeoB9534-5 | 8.9      | -14.94    | 492       | Planulina arimennis                          | x                      | Huang, Mulitza (unpublished) |
| GeoB9534-5 | 8.9      | -14.94    | 492       | Globigerinoides ruber pink                   | x                      | Huang, Mulitza (unpublished) |
| GeoB9534-5 | 8.9      | -14.94    | 492       | Uvigerina peregrina                          | x                      | Huang, Mulitza (unpublished) |
| GeoB9534-5 | 8.9      | -14.94    | 492       | Planulina arimennis                          | x                      | Huang, Mulitza (unpublished) |
| GeoB9534-5 | 8.9      | -14.94    | 492       | Uvigerina peregrina                          | x                      | Huang, Mulitza (unpublished) |
| GeoB964-24  | 20.511   | -20.659   | 3894      | Globigerinoides ruber pink                   | x                      | Bickert (unpublished)      |
| GeoB964-24  | 20.511   | -20.659   | 3894      | Globigerinoides ruber white                  | x                      | Bickert (unpublished)      |
| IOW226660-5 | -24.108  | 12.765    | 1821      | Globorotalia bulloides                       | x                      | Mollenhauer (unpublished)  |
| IOW226660-5 | -24.108  | 12.765    | 1821      | Cibicidoides spp.                            | x                      | Mollenhauer (unpublished)  |
| M35003-4   | 12.09    | -61.243   | 1299      | Globorotalia truncatulinoides (dex)          | x                      | Mulitza (unpublished)      |
| MD90-2559  | -4.606   | -36.646   | 872       | Cibicidoides spp.                            | x                      | Govin (unpublished)        |
| MW9109-36BC | 0       | 158       | 2320      | Trilobatus sacculifer                        | x                      | Lynch-Stieglitz (unpublished) |
| MW9109-44GC | 0       | 158       | 2320      | Pulleniatainobulloculoculata                 | x                      | Lynch-Stieglitz (unpublished) |
| MW9109-44GC | -0.075  | 161.003   | 3397      | Trilobatus sacculifer                        | x                      | Lynch-Stieglitz (unpublished) |
| MW9109-51GC | -0.02   | 161.341   | 341       | Trilobatus sacculifer                        | x                      | Lynch-Stieglitz (unpublished) |
| MW9109-55GC | -0.014  | 161.773   | 4024      | Trilobatus sacculifer                        | x                      | Lynch-Stieglitz (unpublished) |
| MW9109-55GC | -0.014  | 161.773   | 4024      | Pulleniatainobulloculoculata                 | x                      | Lynch-Stieglitz (unpublished) |
| ODP1078C   | -11.921  | 13.4      | 426       | Bolivina dilatata                            | x                      | Mulitza (unpublished)      |
| ODP1078C   | -11.921  | 13.4      | 426       | Globigerinoides ruber pink                   | x                      | Mulitza (unpublished)      |
| ODP1078C   | -11.921  | 13.4      | 426       | Uvigerina spp.                               | x                      | Mulitza (unpublished)      |
| ODP1084    | -25.514  | 13.028    | 1992      | Globorotalia bulloides                       | x                      | Mollenhauer (unpublished)  |
| PS2458-4   | 78.167   | 133.398   | 983       | Neogloboquadrina pachyderma sin              | x                      | Spielhagen (unpublished)   |
| PS1308-3   | 80.013   | -4.837    | 1458      | Neogloboquadrina pachyderma sin              | x                      | Spielhagen (unpublished)   |
| PS1519-12  | 81.79    | 31.502    | 3002      | Neogloboquadrina pachyderma sin              | x                      | Horwege, Spielhagen (unpublished) |
| PS1704-4   | 78.385   | 1.075     | 1212      | Neogloboquadrina pachyderma sin              | x                      | Horwege, Spielhagen (unpublished) |
| PS1706-1   | 74.25    | -10.058   | 3011      | Cibicidoides wuellerstorfi                   | x                      | Horwege, Spielhagen (unpublished) |
| PS1706-1   | 74.25    | -10.058   | 3011      | Neogloboquadrina pachyderma sin              | x                      | Horwege, Spielhagen (unpublished) |
| PS1707-1   | 72.617   | -13.84    | 2118      | Cibicidoides wuellerstorfi                   | x                      | Horwege, Spielhagen (unpublished) |
| PS1707-1   | 72.617   | -13.84    | 2118      | Neogloboquadrina pachyderma sin              | x                      | Horwege, Spielhagen (unpublished) |
| PS1708-1   | 71.812   | -12.567   | 1298      | Neogloboquadrina pachyderma sin              | x                      | Horwege, Spielhagen (unpublished) |
| PS75 072-4 | -57.559  | -151.219  | 3099      | Neogloboquadrina pachyderma sin              | x                      | Tiedemann, Lembke-Jene (unpublished) |
| PS75 073-2 | -57.204  | -151.611  | 3234      | Neogloboquadrina pachyderma sin              | x                      | Tiedemann, Lembke-Jene (unpublished) |
| PS75 085-1 | -61.94   | -160.118  | 3734      | Neogloboquadrina pachyderma sin              | x                      | Tiedemann, Lembke-Jene (unpublished) |
| RC16-59    | 4        | -43       | 2500      | Trilobatus sacculifer                        | x                      | Lynch-Stieglitz (unpublished) |
| SK218 1    | 14.034   | 82.002    | 3307      | Globigerinoides ruber white                  | x                      | Giovil, Kuhnert, Rüd, Mulitza (unpublished) |
| SO189-119KL| 3.518    | 96.315    | 808       | Globigerinoides ruber sensu stricto          | x                      | Mohtadi (unpublished)       |
| SO189-144KL| 1.155    | 98.066    | 481       | Globigerinoides ruber sensu stricto          | x                      | Mohtadi (unpublished)       |
| SO189-39KL | -0.79    | 99.909    | 517       | Globigerinoides ruber sensu stricto          | x                      | Mohtadi (unpublished)       |
| SO213-59-2 | -45.829  | -116.879  | 3161      | Globorotalia inflata                         | x                      | Nürnberg (unpublished)      |
| SO213-59-2 | -45.829  | -116.879  | 3161      | Globigerinoides bulloides                    | x                      | Nürnberg (unpublished)      |
| Core     | Latitude | Longitude | Depth  | Species                        | Previously unavailable | Contributing PI/Reference       |
|----------|----------|-----------|--------|--------------------------------|------------------------|--------------------------------|
| SO213-59-2 | -45.829  | -116.879  | 3161   | *Globoquadratia truncatulinoides* (dex) | x                      | Nürnberg (unpublished)          |
| SO225-08-3 | -7.198   | -165.054  | 3589   | *Globigerinoides ruber*           | x                      | Nürnberg (unpublished)          |
| SO225-08-3 | -7.198   | -165.054  | 3589   | *Trilobatus sacculifer*           | x                      | Nürnberg (unpublished)          |
| SO225-08-3 | -7.198   | -165.054  | 3589   | *Globoquadratia tumida*           | x                      | Nürnberg (unpublished)          |
| SO225-53-3 | -13.52   | -162.138  | 3152   | *Globoquadratia crassaformis*     | x                      | Nürnberg (unpublished)          |
| SO225-53-3 | -13.52   | -162.138  | 3152   | *Trilobatus sacculifer*           | x                      | Nürnberg (unpublished)          |
| SO225-53-3 | -13.52   | -162.138  | 3152   | *Globigerinoides ruber*           | x                      | Nürnberg (unpublished)          |
| SO225-53-3 | -13.52   | -162.138  | 3152   | *Globoquadratia truncatulinoides* (dex) | x                      | Nürnberg (unpublished)          |
| V20-234    | 5.317    | -53.03    | 3133   | *Trilobatus sacculifer*           | x                      | Lynch-Stieglitz (unpublished)   |
| V27-180    | 3.333    | -21       | 4468   | *Trilobatus sacculifer*           | x                      | Lynch-Stieglitz (unpublished)   |
| V29-9      | -2.85    | 83.133    | 2898   | *Cibicidoides spp.*               | x                      | Lynch-Stieglitz (unpublished)   |

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S4: Species categorisation used in Figure 5 and 6

**Cibicides/Cibicidoides spp.** Cibicides wuellerstorfi, Fontbotia wuellerstorfi, Cibicidoides cf. wuellerstorfi, Cibicidoides spp., Cibicides floridanus, Cibicides spp., Cibicidoides pachyderma, Planulina wuellerstorfi, Cibicidoides spp, Cibicides mckannai, Cibicidoides kullenbergi/Cibicidoides wuellerstorfi, Cibicidoides kullenbergi, Cibicidoides wuellerstorfi/Cibicidoides kullenbergi, Cibicides wuellerstorfi, Cibicidoides wuellerstorfi/Cibicidoides sp., Cibicides lobatulus, Cibicidoides sp., Cibicides pachyderma, Cibicides sp., Cibicides kullenbergi, Cibicidoides mundulus, Cibicidoides lobatulus, Cibicidoides kullenbergi/Planulina wuellerstorfi, Cibicidoides pachyderma/Planulina wuellerstorfi, Cibicidoides mabahethi, Cibicides corpulentus, Cibicides cicatricosus, Cibicides wuellerstorfi mixed, Cibicides wuellerstorfi dextral, Cibicides wuellerstorfi sinistral, Cibicidoides wuellerstorfi dextral, Cibicidoides wuellerstorfi sinistral, Cibicidoides cicatricosus, Cibicidoides robertsonianus

5 **Uvigerina spp.** Uvigerina akitaensis, Uvigerina angulosa, Uvigerina auberiana, Uvigerina bifurcata, Uvigerina excellens, Uvigerina hollicki, Uvigerina peregrina, Uvigerina semiornata, Uvigerina senticosa, Uvigerina sp., Uvigerina spp.

10 **Other benthics:** Cibicidoides pachyderma/Planulina sp./P. ariminensis, Cibicidoides wuellerstorfi/Nuttallides umbonifera, Planulina ariminensis and Cibicidoides spp., Planulina ariminensis/Cibicidoides pseudoangerianus, Globobulimina affinis, Globobulimina turgida, Globobulimina spp., Globobulimina pacifica, Cassidulina laevigata, Cassidulina neoteretis, Cassidulina biora, Cassidulina teretis, Melonis barleanum, Melonis barleanus, Melonis sp., Melonis zaandami, Melonis affinis, Bolivina dilatata, Bolivina argentea, Bulimina aculeata, Bulimina marginata, Elphidium battalis, Gyroidinoides spp., Gyroidina aliformis, Oridoralis umbonatus, Oridoralis tener, Planulina ariminensis, Planulina foveolata, Planulina robertsoniensis, Planulina rugosa, Planulina spp., Hoeglundina elegans, Angulogerina angulosa, Creseis acicula, Creseis virgula, Epistominella exigua, Pyrgo murrhina, Pallenia bulloides, Nuttalides, Nuttalides umbonifera, Benthic foraminifera

15 **Globigerinoides ruber** Globigerinoides ruber, Globigerinoides ruber pink, Globigerinoides ruber sensu stricto, Globigerinoides ruber sensu lato, Globigerinoides ruber white

20 **Trilobatus sacculifer** Globigerinoides sacculifer, Globigerinoides sacculifer sac, Globigerinoides sacculifer trilobus, Trilobatus sacculifer

25 **Globigerina bulloides** Globigerina bulloides
**Neogloboquadrina pachyderma:** Neogloboquadrina pachyderma, Neogloboquadrina pachyderma sinistral, Neogloboquadrina pachyderma dextral and/or sinistral, Neogloboquadrina pachyderma dextral, Neogloboquadrina pachyderma dextral and or sinistral, Neogloboquadrina incompta

**Other planktics:** Globorotalia crassaformis, Globorotalia inflata, Globorotalia menardii, Globorotalia tumida, Globorotalia truncatulinoides, Globorotalia truncatulinoides sin, Globorotalia truncatulinoides (right), Globorotalia truncatulinoides sinistral, Globorotalia truncatulinoides dextral, Turborotalita quinqueloba, Neogloboquadrina dutertrei, Neogloboquadrina dutertrei dextral, Globigerinoides conglobatus, Pulleniatina obliquiloculata