

Additional References: Newsletter 2008/1 "Paleoceanography"

There are references for the following articles:

- [Boessenkool](#)
- [Galbraith](#)
- [Gheradi](#)
- [Grimalt](#)
- [Hönisch](#)
- [Kaiser](#)
- [Lynch-Stieglitz](#)
- [Schmidt](#)
- [Siddall](#)
- [Slujis](#)
- [Weldeab](#)
- [Yamamoto](#)

**Boessenkool:**

Bianchi, G. and McCave, I.N., 2000: Hydrography and sedimentation under the deep western boundary current on Björn and Gardar Drifts, Iceland Basin, *Marine Geology*, **165**: 137-169.

Biaosoch, A., Kase, R.H. and Stammer, D.B., 2003: The sensitivity of the Greenland-Scotland Ridge overflow to forcing changes, *Journal of Physical Oceanography*, **33**(11): 2307-2319.

Cheng, W. and Rhines, P.B., 2004: Response of the overturning circulation to high-latitude fresh-water perturbations in the North Atlantic, *Climate Dynamics*, **22**: 359–372.

Curry, R. and Mauritzen, C., 2005: Dilution of the northern North Atlantic Ocean in recent decades, *Science*, **308**(5729): 1772-1774.

Dickson, R., Lazier, J., Meincke, J., Rhines, P. and Swift, J., 1996: Long-term coordinated changes in the convective activity of the North Atlantic, *Progress in Oceanography*, **38**(3): 241-295.

Eden, C. and Jung, T., 2001: North Atlantic interdecadal variability: Oceanic response to the North Atlantic Oscillation (1865-1997), *Journal of Climate*, **14**(5): 676-691.

Hansen, B. and Østerhus, S., 2000: North Atlantic-Nordic Seas exchanges, *Progress in Oceanography*, **45**(2): 109-208.

Jones, P., Jonsson, T. and Wheeler, D., 1997: Extension to the North Atlantic Oscillation using early instrumental pressure observations from Gibraltar and south-west Iceland, *International Journal of Climatology*, **17**(13): 1433-1450.

Lazier, J., Hendry, R., Clarke, A., Yashayaev, I. and Rhines, P., 2002: Convection and restratification in the Labrador Sea, 1990-2000, *Deep Sea Research Part I: Oceanographic Research Papers*, **49**(10): 1819-1835.

Mudelsee, M., 2003: Estimating Pearson's correlation coefficient with bootstrap confidence interval from serially dependent time series, *Mathematical Geology*, **35**(6): 651-665.

Rahmstorf, S., 2002: Ocean circulation and climate during the past 120,000 years, *Nature*, **419**(6903): 207-214.

Saunders, P. M. 1994: The flow of overflow water through the Charlie-Gibbs Fracture Zone, *Journal of Geophysical Research*, **99**(C6): 12,343-12,355.

### **Galbraith:**

Boyle, E.A., 1988: Vertical Oceanic Nutrient Fractionation and Glacial Interglacial CO<sub>2</sub> Cycles, *Nature*, **331**(6151): 55-56.

Boyle, E., 1992: Cadmium and d<sup>13</sup>C paleochemical ocean distributions during the stage 2 glacial maximum, *Annual Review of Earth and Planetary Sciences*, **20**: 245-287.

Broecker, W.S., Clark, E., Hajdas, I. and Bonani, G., 2004: Glacial ventilation rates for the deep Pacific Ocean, *Paleoceanography*, **19**(2): doi:10.1029/2003PA000974.

Brunelle, B.G., Sigman, D., Cook, M., Keigwin, L., Haug, G., Mingram, B. and Schettler, G., 2007: Evidence from diatom-bound nitrogen isotopes for Subarctic Pacific stratification during the last ice age and a link to North Pacific denitrification changes, *Paleoceanography*, **22**: 10.1029/2005PA001205.

Cook, M., Keigwin, L. and Sancetta, C., 2005: The deglacial history of surface and intermediate water of the Bering Sea, *Deep-Sea Research II*, **52**: 2163-2173.

Key, R.M., Kozyr, A., Sabine, C.L., Lee, K., Wanninkhof, R., Bullister, J.L., Feely, R.A., Millero, F.J., Mordy, C. and Peng, T.H., 2004: A global ocean carbon climatology: Results from Global Data Analysis Project (GLODAP), *Global Biogeochemical Cycles*, **18**(4): doi:10.1029/2004GB002247.

Kienast, S.S., Hendy, I.L., Crusius, J., Pedersen, T.F. and Calvert, S.E., 2004: Export production in the subarctic North Pacific over the last 800 kyrs: No evidence for iron fertilization?, *Journal of Oceanography*, **60**(1): 189-203.

Shackleton, N., Duplessy, J.C., Arnold, M., Maurice, P., Hall, M. and Cartlidge, J., 1988: Radiocarbon age of last glacial Pacific deep water, *Nature*, **335**: 708-711.

Sigman, D.M. and Boyle, E.A., 2000: Glacial/interglacial variations in atmospheric carbon dioxide, *Nature*, **407**(6806): 859-869.

Sikes, E.L., Samson, C., Guilderson, T. and Howard, W., 2000: Old Radiocarbon ages in the southwest Pacific Ocean during the last glacial period and deglaciation, *Nature*, **405**: 555-559.

Stephens, B. and Keeling, R., 2000: The influence of Antarctic sea ice on glacial-interglacial CO<sub>2</sub> variations, *Nature*, **404**: 171-174.

Toggweiler, J., 1999: Variation of atmospheric CO<sub>2</sub> by ventilation of the ocean's deepest water, *Paleoceanography*, **14**: 571-588.

Zheng, Y., van Geen, A., Anderson, R., Gardner, J. and Dean, W., 2000: Intensification of the northeast Pacific oxygen minimum zone during the Bolling-Allerod warm period, *Paleoceanography*, **15**(5): 528-536.

#### **Gheradi:**

Boyle, E.A. and Keigwin, L. 1987: North Atlantic thermohaline circulation during the past 20,000 years linked to high latitude surface temperature, *Nature*, **330**: 35-40.

Broecker, W.S., 1979: A revised estimate for the radiocarbon age of North Atlantic Deep water, *Journal of Geophysical Research*, **84**: 3218-3226.

Broecker, W.S. and Peng, T.-H., 1982: *Tracers in the sea*, Columbia University, Palisades, New-York.

Campin, J.M., Fichefet, T. and Duplessy, J.C., 1999: Problems with using radiocarbon to infer ocean ventilation rates for past and present climates, *Earth and Planetary Science Letters*, **165**: 17-24.

Curry, W.B. and Oppo, D.W., 2005: Glacial water mass geometry and the distribution of d<sup>13</sup>C of SCO<sub>2</sub> in the western Atlantic Ocean, *Paleoceanography*, **20**: PA1017, doi:10.1029/2004PA001021.

Duplessy, J.C., Shackleton, N.J., Fairbanks, R.G., Labeyrie, L.D., Oppo, D. and Kallel, N., 1988: Deepwater source variations during the last climatic cycle and their impact on the global deepwater circulation, *Paleoceanography*, **3**: 343-360.

Labeyrie, L.D., Duplessy, J.C., Duprat, J., Juillet-Leclerc, A.J., Moyes, J., Michel, E., Kallel, N. and Shackleton, N.J., 1992: Changes in the vertical structure of the north Atlantic ocean between glacial and modern times, *Quaternary Science Reviews*, **11**: 401-413.

Labeyrie, L., Waelbroeck, C., Cortijo, E., Michel, E. and Duplessy, J.C., 2005:

Changes in deep water hydrology during the Last Deglaciation, *Comptes Rendus Geoscience*, **337**: 919-927.

Marchal, O., Francois, R., Stocker, T.F. and Joos, F., 2000: Ocean thermohaline circulation and sedimentary  $^{231}\text{Pa}/^{230}\text{Th}$  ratio, *Paleoceanography*, **15**: 625-641.

Marchitto, T.M. and Broecker, W.S., 2006: Deep water mass geometry in the glacial Atlantic Ocean: A review of constraints from the paleonutrient proxy Cd/Ca, *Geochemistry Geophysics Geosystems*, **7**: Q12003, doi:10.1029/2006GC001323.

Sarnthein, M., Winn, K., Jung, S.J.A., Duplessy, J.-C., Labeyrie, L., Erlenkeuser, H. and Ganssen, G., 1994: Changes in east Atlantic deepwater circulation over the last 30,000 years: Eight time slice reconstructions, *Paleoceanography*, **9**: 209-267.

Siddall, M., stocker, T.F., Henderson, G.M., Joos, F., Frank, M., Edwards, N.L., Ritz, S. and Müller, S.A., 2007: Modelling the relationship between  $^{231}\text{Pa}/^{230}\text{Th}$  distribution in the North Atlantic sediment and Atlantic meridional overturning circulation, *Paleoceanography*, **22**: PA2214, doi:10.1029/2006PA001358.

Turekian, K.K. and Chan L.H., 1971: The marine geochemistry of the uranium isotopes  $^{230}\text{Th}$  and  $^{231}\text{Pa}$ . In: A. Brunfelt (Ed), *Activation Analysis in Geochemistry and Cosmochemistry*, Oslo University Press, Oslo.

### **Grimalt:**

Alley, R.B., Marotzke, J., Nordhaus, W.D., Overpeck, J.T., Peteet, D.M., Pielke, R.A. Jr., Pierrehumbert, R.T., Rhines, P.B., Stocker, T.F., Talley, L.D. and Wallace, J.M., 2003: Abrupt climate change, *Science*, **299**: 2005-2010.

Jouzel, J., Masson-Delmotte, V., Cattani, O., Dreyfus, G., Falourd, S., Hoffmann, G., Minster, B., Nouet, J., Barnola, J.M., Chappellaz, J., Fischer, H., Gallet, J.C., Johnsen, S.J., Leuenberger, M., Loulergue, L., Luethi, D., Oerter, H., Parrenin, F., Raisbeck, G., Raynaud, D., Schilt, A., Schwander, J., Selmo, E., Souchez, R., Spahni, R., Stauffer, B., Steffensen, J.P., Stenni, B., Stocker, T.F., Tison, J.L., Werner, M. and Wolff, E.W., 2007: Orbital and millennial Antarctic climate variability over the past 800,000 years, *Science*, **317**: 793-796.

North Greenland Ice Core Project members, 2004: High resolution record of northern hemisphere climate extending into the last interglacial period, *Nature*, **431**: 147-151.

Stocker, T.F. and Johnsen, S.J., 2003: A minimum thermodynamic model for the bipolar seesaw. *Paleoceanography*, **18**: 1087, doi:10.1029/2003PA000920; correction: T.F. Stocker, S.J. Johnsen, 2005: *Paleoceanography*, **20**: PA1002

Tzedakis, P.C., Frogley, M.R., Lawson, I.T., Preece, R.C., Cacho, I. and de Abreu, L., 2004: Ecological thresholds and patterns of millennial-scale climate variability: the

response of vegetation in Greece during the last glacial period, *Geology*, **32**: 109-112.

### **Hönisch:**

Al-Horani, F.A., Al-Moghrabi, S.M. and De Beer, D., 2003: The mechanism of calcification and its relation to photosynthesis and respiration in the scleractinian coral *Galaxea fascicularis*, *Marine Biology*, **142**: 419-426.

Anderson, D.M. and Archer, D., 2002: Glacial-interglacial stability of ocean pH inferred from foraminifer dissolution rates, *Nature*, **416**: 70-72.

Broecker, W.S., 1982: Ocean chemistry during glacial time, *Geochimica et Cosmochimica Acta*, **46**: 1689-1705.

Farrell, J.W. and Prell, W., 1989: Climatic change and CaCO<sub>3</sub> preservation: An 800,000 year bathymetric reconstruction from the central equatorial Pacific Ocean, *Paleoceanography*, **4**: 447-466.

Hemming, N.G. and Hanson, G.N., 1992: Boron isotopic composition and concentration in modern marine carbonates, *Geochimica et Cosmochimica Acta*, **56**: 537-543.

Hönisch, B., Bickert, T., Hemming, N.G., in prep: Boron Isotopes in Benthic Foraminifers: Monospecific Coretop Calibration and Late Pleistocene pH – Reconstruction, to be submitted to *Earth and Planetary Science Letters*.

Hönisch, B., Bijma, J., Russell, A.D., Spero, H.J., Palmer, M.R., Zeebe, R.E. and Eisenhauer, A., 2003: The influence of symbiont photosynthesis on the boron isotopic composition of foraminifera shells, *Marine Micropaleontology*, **49**: 87-96.

Hönisch, B. and Hall, J., 2007: Carbon cycle proxies, *Encyclopedia of Quaternary Sciences*, Elsevier: 1699-1710.

Jørgensen, B.B., Erez, J., Revsbech, N.P. and Cohen, Y., 1985: Symbiotic photosynthesis in a planktonic foraminiferan, *Globigerinoides sacculifer* (Brady), studied with microelectrodes, *Limnology and Oceanography*, **30**: 1253-1267.

Lemarchand, D., Gaillardet, J., Lewin, É. and Allègre, C.J., 2000: The influence of rivers on marine boron isotopes and implications for reconstructing past ocean pH, *Nature*, **408**: 951-954.

Marchitto, T.M., Lynch-Stieglitz, J. and Hemming, S.R., 2005: Deep Pacific CaCO<sub>3</sub> compensation and glacial-interglacial atmospheric CO<sub>2</sub>, *Earth and Planetary Science Letters*, **231**: 317-336.

Marchitto, T.M., Oppo, D.W. and Curry, W.B., 2002: Paired benthic foraminiferal

Cd/Ca and Zn/Ca evidence for a greatly increased presence of Southern Ocean Water in the glacial North Atlantic, *Paleoceanography*, **17**: doi:10.1029/2000PA000598.

Pagani, M., Freeman, K.H. and Arthur, M.A., 1999: Late Miocene Atmospheric CO<sub>2</sub> Concentrations and the Expansion of C4 Grasses, *Science*, **285**: 876-879.

Pagani, M., Zachos, J.C., Freeman, K.H., Tipple, B. and Bohaty, S., 2005: Marked Decline in Atmospheric Carbon Dioxide Concentrations During the Paleogene, *Science*, **309**: 600-603.

Pearson, P.N. and Palmer, M.R., 2000: Atmospheric carbon dioxide concentrations over the past 60 million years, *Nature*, **406**: 695-699.

Pelejero, C., Calvo, E., Mcculloch, M.T., Marshall, J.F., Gagan, M.K., Lough, J.M. and Opdyke, B.N., 2005: Preindustrial to Modern Interdecadal Variability in Coral Reef pH, *Science*, **309**: 2204-2207.

Petit, J.R., Jouzel, J., Raynaud, D., Barkov, J.M., Barnola, J.M., Basile, I., Bender, M., Chappellaz, J., Davis, M., Delaygue, G., Delmotte, M., Kotlyakov, V.M., Legrand, M., Lipenkov, V.Y., Lorius, C., Pepin, L., Ritz, C., Saltzman, E., Stievenard, M., 1999: Climate and atmospheric history of the past 420,000 years from the Vostok ice core, Antarctica, *Nature*, **399**: 429-436.

Reynaud, S., Hemming, N.G., Juillet-Leclerc, A. and Gattuso, J.-P., 2004: Effect of pCO<sub>2</sub> and temperature on the boron isotopic composition of a zooxanthellate coral: *Acropora* sp., *Coral Reefs*, **23**: doi:10.1007/s00338-004-0399.

Rink, S., Kühl, M., Bijma, J. and Spero, H.J., 1998: Microsensor studies of photosynthesis and respiration in the symbiotic foraminifer *Orbulina universa*, *Marine Biology*, **131**: 583-595.

Royer, D.L., Berner, R.A. and Beerling, D.J., 2001: Phanerozoic atmospheric CO<sub>2</sub> change: evaluating geochemical and paleobiological approaches, *Earth-Science Reviews*, **54**: 349-392.

Sanyal, A., Bijma, J., Spero, H.J. and Lea, D.W., 2001: Empirical relationship between pH and the boron isotopic composition of *G. sacculifer*: Implications for the boron isotope paleo-pH proxy, *Paleoceanography*, **16**: 515-519.

Sanyal, A., Hemming, N.G., Broecker, W.S., Lea, D.W., Spero, H.J. and Hanson, G.N., 1996: Oceanic pH control on the boron isotopic composition of foraminifera: Evidence from culture experiments, *Paleoceanography*, **11**: 513-517.

Sanyal, A., Hemming, N.G., Hanson, G.N. and Broecker, W.S., 1995: Evidence for a higher pH in the glacial ocean from boron isotopes in foraminifera, *Nature*, **373**: 234-236.

Sanyal, A., Nugent, M., Reeder, R.J., and Bijma, J., 2000: Seawater pH control on the

boron isotopic composition of calcite: Evidence from inorganic calcite precipitation experiments, *Geochimica et Cosmochimica Acta*, **64**: 1551-1555.

Siegenthaler, U., Stocker, T.F., Monnin, E., Luthi, D., Schwander, J., Stauffer, B., Raynaud, D., Barnola, J.-M., Fischer, H., Masson-Delmotte, V. and Jouzel, J., 2005: Stable Carbon Cycle-Climate Relationship During the Late Pleistocene. *Science*, **310**: 1313-1317.

Spero, H.J. and Lea, D.W., 1993: Intraspecific stable isotope variability in the planktic foraminifera *Globigerinoides sacculifer*: Results from laboratory experiments, *Marine Micropaleontology*, **22**: 221-234.

Zachos, J., Pagani, M., Sloan, L., Thomas, E. and Billups, K., 2001: Trends, rhythms, and aberrations in global climate 65Ma to present, *Science*, **292**: 686-693.

### **Kaiser:**

Berger, A. and Loutre, M.F., 1991: Insolation values for the climate of the last 10 million years, *Quaternary Science Reviews*, **10**: 297-317.

Blunier, T. and Brook, E.J., 2001: Timing of millennial-scale climate change in Antarctica and Greenland during the last glacial period *Science*, **291**: 109-112.

Grootes, P.M., Stuiver, M., White, J.W.C., Johnsen, S. and Jouzel, J., 1993: Comparison of oxygen isotope records from the GISP2 and GRIP Greenland ice cores, *Nature*, **366**: 552-554.

Hebbeln, D., Lamy, F., Mohtadi, M. and Echtler, H., 2007: Tracing the impact of glacial-interglacial climate variability on erosion of the southern Andes, *Geology*, **35**: 131-134.

Hebbeln, D., Marchant, M. and Wefer, G., 2002: Paleoproductivity in the southern Peru-Chile Current through the last 33,000 years, *Marine Geology*, **186**: 487-504.

Heusser, L., Heusser, C. and Piasias, N., 2006: Vegetation and climate dynamics of southern Chile during the past 50,000 years: results of ODP Site 1233 pollen analysis, *Quaternary Science Reviews*, **25**: 474.

Indermühle, A., Monnin, E., Stauffer, B., Stocker, T.F. and Wahlen, M., 2000: Atmospheric CO<sub>2</sub> concentration from 60 to 20 kyr BP from the Taylor Dome ice core, Antarctica, *Geophysical Research Letters*, **27**: 735-738.

Kim, J.H., Schneider, R.R., Hebbeln, D., Muller, P.J. and Wefer, G., 2002: Last deglacial sea-surface temperature evolution in the Southeast Pacific compared to climate changes on the South American continent, *Quaternary Science Reviews*, **21**: 2085-2097.

Knutti, R., Flückiger, J., Stocker, T. and Timmermann, A., 2004: Strong hemispheric coupling of glacial climate through freshwater discharge and ocean circulation, *Nature*, **430**: 851-856.

Lamy, F., Hebbeln, D., Rohl, U. and Wefer, G., 2001: Holocene rainfall variability in southern Chile: a marine record of latitudinal shifts of the Southern Westerlies, *Earth and Planetary Science Letters*, **185**: 369-382.

Lamy, F., Hebbeln, D. and Wefer, G., 1998: Terrigenous sediment supply along the Chilean continental margin: modern regional patterns of texture and composition, *Geologische Rundschau*, **87**: 477-494.

Lamy, F., Hebbeln, D. and Wefer, G., 1999: High-resolution marine record of climatic change in mid- latitude Chile during the last 28,000 years based on terrigenous sediment parameters, *Quaternary Research*, **51**: 83-93.

Marchant, M., Cecioni, A., Figueroa, S., Gonzalez, H., Giglio, S., Hebbeln, D., Kaiser, J., Lamy, F., Mohtadi, M., Pineda, V. and Romero, O., 2007: Marine geology, oceanography and climate. In: T. Moreno, and W. Gibbons (Eds), *The geology of Chile*, Ecological Society Special Publication, London, 289-308.

Martinez, P., Lamy, F., Robinson, R.R., Pichevin, L. and Billy, I., 2006: Atypical  $d^{15}N$  variations at the southern boundary of the East Pacific oxygen minimum zone over the last 50 ka, *Quaternary Science Reviews*, **25**: 3017-3028.

Mohtadi, M. and Hebbeln, D., 2004: Mechanisms and variations of the paleoproductivity off northern Chile (24°S-33°S) during the last 40,000 years, *Paleoceanography*, **19**: PA2023.

Monnin, E., Indermühle, A., Dallenbach, A., Fluckiger, J., Stauffer, B., Stocker, T.F., Raynaud, D. and Barnola, J.M., 2001: Atmospheric CO<sub>2</sub> concentrations over the last glacial termination, *Science*, **291**: 112-114.

Pisias, N., Heusser, L., Heusser, C., Hostetler, S.W., Mix, A.C. and Weber, M., 2006: Radiolaria and pollen records from 0 to 50 ka at ODP Site 1233: continental and marine climate records from the Southeast Pacific, *Quaternary Science Reviews*, **25**: 455.

Schmittner, A., Yoshimori, M. and Weaver, A.J., 2002: Instability of Glacial Climate in a Model of the Ocean-Atmosphere-Cryosphere System, *Science*, **295**: 1489-1493.

Stocker, T.F. and Johnsen, S.J., 2003: A minimum thermodynamic model for the bipolar seesaw, *Paleoceanography*, **18**: PA1087.

Stuut, J.-B.W. and Lamy, F., 2004: Climate variability at the southern boundaries of the Namib (southwestern Africa) and Atacama (northern Chile) coastal deserts during the last 120,000 yr., *Quaternary Research*, **62**: 301-309.



Timmermann, A., Krebs, U., Justino, F., Goosse, H. and Ivanochko, T., 2005: Mechanisms for millennial-scale global synchronization during the last glacial period, *Paleoceanography*, **20**: PA4008.

Toggweiler, J.R., Russell, J.L. and Carson, S.R., 2006: Midlatitude westerlies, atmospheric CO<sub>2</sub>, and climate change during ice ages, *Paleoceanography*, **21**: doi:10.1029/2005PA001154.

Yin, J. H., 2005: A consistent poleward shift of the storm tracks in simulations of 21st century climate, *Geophysical Research Letters*, **32**: L18701.

### **Lynch-Stieglitz:**

Adkins, J.F., McIntyre, K. and Schrag, D.P., 2002: The temperature, salinity and delta O-18 of the LGM deep ocean, *Geochim Cosmochim Acta*, **66**(15A): A7-A7.

Conkright, M.E., Locarnini, R.A., Garcia, H.E., O'Brien, T.D., Boyer, T.P., Stephens, C. and Antonov, J.I., 2002: *World Ocean Atlas 2001: Objective Analyses, Data Statistics, and Figures, CD-ROM Documentation*, National Oceanographic Data Center, Silver Spring, MD: 17

Cunningham, S.A., Kanzow, T., Rayner, D., Baringer, M.O., Johns, W.E., Marotzke, J., Longworth, H.R., Grant, E.M., Hirschi, J.J.-M., Beal, L.M., Meinen, C.S. and Bryden, H.L., 2007: Temporal Variability of the Atlantic Meridional Overturning Circulation at 26.5°N, *Science*, **317**: 935-938.

Elderfield, H., Yu, J., Anand, P., Kiefer, T. and Nyland, B., 2006: Calibrations for benthic foraminiferal Mg/Ca palaeothermometry and the carbonate ion hypothesis, *Earth and Planetary Science Letters*, **250**: 633-649.

Hirschi, J. and Marotzke, J., 2007: Reconstructing the meridional overturning circulation from boundary densities and the zonal wind stress, *Journal of Physical Oceanography*, **37**(3): 743-763.

Lynch-Stieglitz, J., Curry, W.B. and Slowey, N., 1999a: Weaker Gulf Stream in the Florida Straits during the Last Glacial Maximum, *Nature*, **402**: 644-648.

Lynch-Stieglitz, J., Curry, W.B. and Slowey, N., 1999b, A geostrophic transport estimate for the Florida Current from the oxygen isotope composition of benthic foraminifera, *Paleoceanography*, **14**: 360-373.

Marchitto, T.M., Bryan, S.P., Curry, W.B. and McCorkle, D.C., 2007: Mg/Ca temperature calibration for the benthic foraminifer *Cibicides pachyderma*, *Paleoceanography*, **22**: PA1203, 10.1029/2006PA001287.

Marotzke, J., Giering, R., Zhang, K., Stammer, D., Hill, C. and Lee, T., 1999:

Construction of the adjoint MIT ocean general circulation model and application to Atlantic heat transport sensitivity, *Journal of Geophysical Research*, **104**: 29529-29547.

### **Schmidt:**

Boyle, E.A., 2000: Is ocean thermohaline circulation linked to abrupt stadial/interstadial transitions? *Quaternary Science Reviews*, **19**: 255-272.

Broecker, W.S., 1989: The salinity contrast between the Atlantic and Pacific during glacial time, *Paleoceanography*, **4**(2): 207-212.

Broecker, W.S., 1991: The great ocean conveyor, *Oceanography*, **4**: 79-89.

Broecker, W.S., Bond, G., Klas, M., Bonani, G. and Wolfli, W., 1990: A salt oscillator in the glacial Atlantic? The concept, *Paleoceanography*, **5**(4): 469-478.

Charles, C.D. and Fairbanks, R.G., 1990: Glacial to interglacial changes in the isotopic gradients of southern ocean surface water. In: U. Bleil and J. Thiede (Eds), *Geological history of the Polar Oceans: Arctic versus Antarctic*, Kluwer, Netherlands, 519-538.

Curry, R., Dickson, B. and Yashayaev, I., 2003: A change in the freshwater balance of the Atlantic Ocean over the past four decades, *Nature*, **426**(18/25 December): 826-829.

Curry, W.B. and Oppo, D.W., 1997: Synchronous high-frequency oscillations in tropical sea surface temperatures and North Atlantic deep water production during the last glacial cycle, *Paleoceanography*, **12**(1): 1-14.

Johnsen, S.J., Dahl-Jensen, D., Gundestrup, N., Steffensen, J.P., Clausen, H.B., Miller, H., Masson-Delmotte, V., Sveinbjornsdottir, A.E. and White, J., 2001: Oxygen isotope and palaeotemperature records from six Greenland ice-core stations: Camp Century, Dye-3, GRIP, GISP2, Renland and NorthGRIP, *Journal of Quaternary Science*, **16**(4): 299-307.

Jouzel, J., Hoffmann, G., Koster, R.D. and Masson, V., 2000: Water isotopes in precipitation: data/model comparison for present-day and past climates, *Quaternary Science Reviews*, **19**: 363-379.

Lohmann, G., 2003: Atmospheric and oceanic freshwater transport during weak Atlantic overturning circulation, *Tellus*, **55A**: 438-449.

Oppo, D.W. and Lehman, S.J., 1995: Suborbital timescale variability of North Atlantic deep water during the past 200,000 years, *Paleoceanography*, **10**(5): 900-910.

Rasmussen, T. and Thomsen, E., 2004: The role of the North Atlantic Drift in the millennial timescale glacial climate fluctuations, *Palaeogeography Palaeoclimatology Palaeoceanography*, **210**: 101-116.

Vellinga, M. and Wood, R.A., 2002: Global climatic impacts of a collapse of the Atlantic thermohaline circulation, *Climatic Change*, **54**: 251-267.

Vellinga, M. and Wu, P.L., 2004: Low-latitude freshwater influence on centennial variability of the Atlantic thermohaline circulation, *Journal of Climate*, **17**(23): 4498-4511.

Waelbroeck, C., Labeyrie, L.D., Michel, E., Duplessy, J.C., McManus, J.F., Lambeck, K., Balbon, E. and Labracherie, M., 2002: Sea-level and deep water temperature changes derived from benthic foraminifera isotopic records, *Quaternary Science Reviews*, **21**: 295-305.

Xie, S.P., Miyama, T., Wang, Y.Q., Xu, H.M., de Szoeko, S.P., Small, R.J.O., Richards, K.J., Mochizuki, T. and Awaji, T., 2007: A regional ocean-atmosphere model for eastern Pacific climate: Toward reducing tropical biases, *Journal of Climate*, **20**(8): 1504-1522.

Zaucker, F. and Broecker, W.S., 1992: The influence of atmospheric moisture transport on the fresh water balance of the Atlantic drainage basin: general circulation model simulations and observations, *Journal of Geophysical Research*, **97**: 2765-2773.

### **Siddall:**

Arz, H.W., Pätzold, J., Müller, P.J. and Moammar, M.O., 2003: The influence of northern hemisphere climate and global sea level rise on the restricted Red Sea marine environment during the Termination I, *Paleoceanography*, **18**: doi:10.1029/2002PA000864.

Bintanja, R., van de Wal, R.S.W. and Oerlemans, J., 2002: Global ice volume variations through the last glacial cycle simulated by a 3-D ice-dynamical model, *Quaternary International*, **95-6**: 11-23.

EPICA Community Members, 2006: One-to-one interhemispheric coupling of polar climate variability during the last glacial, *Nature*, **444**: 195-198.

Esat, T.M., McCulloch, M.T., Chappell, J., Pillans, B. and Omura, A., 1999: Rapid fluctuations in sea level recorded at Huon Peninsula during the penultimate deglaciation, *Science*, **283**(5399): 197-201.

Fairbanks, R.G., 1989: A 17,000 year glacio-eustatic sea level record: influence of glacial melting rates on the Younger Dryas event and deep ocean circulation, *Nature*,

342: 637-642.

Fenton, M., Geiselhart, S., Rohling, E.J. and Hemleben, Ch., 2000: Aplanktonic zones in the Red Sea, *Marine Micropaleontology*, **40**: 277-294.

Hemleben, C., Meischner, D., Zahn, R., Almogi-Labin, A., Erlenkeuser, H. and Hiller B., 1996: Three hundred eighty thousand year long stable isotope and faunal records from the Red Sea: Influence of global sea level change on hydrography, *Paleoceanography*, **11(2)**: 147-156.

Huber, C., Leuenberger, M., Spahni, R., Flückiger, J., Schwander, J., Stocker, T.F., Johnsen, S.J., Landais, A. and Jouzel, J., 2006: Isotope calibrated Greenland temperature record over Marine Isotope Stage 3 and its relation to CH<sub>4</sub>, *Earth and Planetary Science Letters*, **243**: 504-519.

Huybers, P. and Wunsch, C., 2004: A depth-derived Pleistocene age model: Uncertainty estimates, sedimentation variability, and nonlinear climate change, *Paleoceanography*, **19**, PA1028, doi:10.1029/2002PA000857.

Imbrie J., Hays, J.D., Martinson, D.G., McIntyre, A., Mix, A.C., Morley, J.J., Pisias, N.G., Prell, W.L. and Shackleton, N.J., 1984: The orbital theory of Pleistocene climate: support from a revised chronology of the marine  $\delta^{18}\text{O}$  record. In: Berger A.L., Imbrie J., Hays J., Kukla G., Saltzman B., (Eds.), *Milankovitch and climate, Part 1*. D. Reidel, Reidel, pp. 269-305.

Lambeck, K., Esat, T.M. and Potter, E.K., 2002: Links between climate and sea levels for the past three million years, *Nature*, **419(6903)**: 199-206.

Lisiecki, L.E. and Raymo, M.E., 2005: A Pliocene-Pleistocene stack of 57 globally distributed benthic delta O-18 records, *Paleoceanography*, **20(1)**: Article No. PA1003.

Peltier, W.R., 2004: Global glacial isostasy and the surface of the ice-age earth: The ice-5G (VM2) model and grace, *Annual Review of Earth and Planetary Science*, **32**: 111-149.

Peltier, W.R. and Fairbanks, R.G., 2006: Global glacial ice volume and Last Glacial Maximum duration from an extended Barbados sea level record, *Quaternary Science Reviews*, **25**: 3322-3337.

Rohling, E.J., Fenton, M., Jorissen, F.J., Bertrand, P., Ganssen, G. and Caulet, J.P., 1998: Magnitudes of sea-level lowstands of the past 500,000 years, *Nature*, **394**: 162-165.

Rohling, E.J., 1999: Environmental controls on salinity and d<sup>18</sup>O in the Mediterranean, *Paleoceanography*, **14**: 706-715.

Rohling, E.J., Marsh, R., Wells, N.C., Siddall, M. and Edwards, N.R., 2004: Similar

melt-water contributions to glacial sea-level variability from Antarctic and northern ice sheets, *Nature*, **430**: 1016-1021.

Shackleton, N.J., Hall, M.A. and Vincent, E., 2000: Phase relationships between millennial-scale events 64,000-24,000 years ago, *Paleoceanography*, **15**: 565-569.

Siddall M., Smeed, D.A., Matthiesen, S. and Rohling, E.J., 2002: Modelling the seasonal cycle of the exchange flow in Bab el Mandab (Red Sea), *Deep-Sea Research (Pt. I)*, **49**: 1551-1569.

Siddall, M., Rohling, E.J., Smeed, D.A., Hemleben, Ch. and Meischner, D., 2004: Understanding the Red Sea response to sea level, *Earth and Planetary Science Letters*, **225**: 421-434.

Siddall, M., Bard, E., Rohling, E.J. and Hemleben, Ch., 2006: Sea-level reversal during T II, *Geology*, **34(10)**: 817-820.

Siddall, M., Rohling, E.J., Thompson, W.G. and Waelbroeck, C., submitted: MIS 3 sea level changes: synthesis and new outlook, *Reviews of Geophysics*

Stanford, J.D., Rohling, E.J., Hunter, S.E., Roberts, A.P., Rasmussen, S.O., Bard, E., McManus, J. and Fairbanks, R.G., 2006: Timing of meltwater pulse 1a and climate responses to meltwater injections, *Paleoceanography*, **21**: PA4103, doi:10.1029/2006PA001340.

Thompson, W.G. and Goldstein, S.L., 2006: A radiometric calibration of the SPECMAP timescale, *Quaternary Science Reviews*, **25(23-24)**: 3207-3215.

Thompson, W.G. and Goldstein, S.L., 2005: Open-system coral ages reveal persistent suborbital sea-level cycles, *Science*, **308(5720)**: 401-404.

Thunell, R.C., Locke, S.M. and Williams, D.F., 1988: Glacio-eustatic sea-level control on Red-Sea salinity, *Nature*, **334(6183)**: 601-604.

Werner, F. and Lange K., 1975: A bathymetric survey of the sill area between the Red Sea and the Gulf of Aden, *Geologisches Jahrbuch D*, **13**: 125-130.

### **Slujis:**

Bowen, G.J., Bralower, T.J., Delaney, M.L., Dickens, G.R., Kelly, D.C., Koch, P.L., Kump, L.R., Meng, J., Sloan, L.C., Thomas, E., Wing, S.L. and Zachos, J.C., 2006: Eocene Hyperthermal Event Offers Insight Into Greenhouse Warming, *EOS, Transactions of the American Geophysical Union*, **87(17)**: 165-169.

Cramer, B.S., Wright, J.D., Kent, D.V. and Aubry, M.-P., 2003: Orbital climate forcing of  $\delta^{13}\text{C}$  excursions in the late Paleocene-early Eocene (chrons C24n-C25n),

*Paleoceanography*, **18**(4): 10.1029/2003PA000909.

Crouch, E.M., Heilmann-Clausen, C., Brinkhuis, H., Morgans, H.E.G., Rogers, K.M., Egger, H. and Schmitz, B., 2001: Global dinoflagellate event associated with the late Paleocene thermal maximum, *Geology*, **29**(4): 315-318.

Dickens, G.R., O'Neil, J.R., Rea, D.K. and Owen, R.M., 1995: Dissociation of oceanic methane hydrate as a cause of the carbon isotope excursion at the end of the Paleocene, *Paleoceanography*, **10**: 965-971.

Dickens, G.R., Castillo, M.M. and Walker, J.C.G., 1997: A blast of gas in the latest Paleocene: Simulating first-order effects of massive dissociation of oceanic methane hydrate, *Geology*, **25**(3): 259-262.

Emanuel, K., DesAutels, C., Holloway, C. and Korty, R., 2004: Environmental Control of Tropical Cyclone Intensity, *Journal of the Atmospheric Sciences*, **61**: 843-858.

Huber, M. and Nof, D., 2006: The ocean circulation in the southern hemisphere and its climatic impacts in the Eocene, *Palaeogeography, Palaeoclimatology, Palaeoecology*, **231**(1-2): 9-28.

Kelly, D.C., Zachos, J.C., Bralower, T.J. and Schellenberg, S.A., 2005: Enhanced terrestrial weathering/runoff and surface ocean carbonate production during the recovery stages of the Paleocene-Eocene thermal maximum, *Paleoceanography*, **20**(PA4023): doi:10.1029/2005PA001163.

Kennett, J.P. and Stott, L.D., 1991: Abrupt deep-sea warming, palaeoceanographic changes and benthic extinctions at the end of the Palaeocene, *Nature*, **353**: 225-229.

Koch, P.L., Zachos, J.C. and Gingerich, P.D., 1992: Correlation between isotope records in marine and continental carbon reservoirs near the Palaeocene/Eocene boundary, *Nature*, **358**: 319-322.

Nicolo, M.J., Dickenc, G.R., Hollis, C.J. and Zachos, J.C., 2007: Multiple early Eocene hyperthermals: Their sedimentary expression on the New Zealand continental margin and in the deep sea, *Geology*, **35**(8): 699-702.

Pearson, P.N., van Dongen, B.E., Nicholas, C.J., Pancost, R.D., Schouten, S., Singano, J.M. and Wade, B.S., 2007: Stable warm tropical climate through the Eocene Epoch, *Geology*, **35**(3): 211-214.

Röhl, U., Westerhold, T., Monechi, S., Thomas, E., Zachos, J.C. and Donner, B., 2005: The third and final early Eocene thermal maximum: characteristics, timing, and mechanisms of the "X" event, *Geological Society of America Annual Meeting – Abstracts*, **37**(7): 264.

Schmidt, G.A. and Schindell, D.T., 2003: Atmospheric composition, radiative

forcing, and climate change as a consequence of a massive methane release from gas hydrates, *Paleoceanography*, **18**(1): doi:10.1029/2002PA000757.

Sloan, L.C. and Pollard, D., 1998: Polar stratospheric clouds: A high latitude warming mechanism in an ancient greenhouse world, *Geophysical Research Letters*, **25**(18): 3517-3520.

Sluijs, A., Röhl, U., Schouten, S., Brumsack, H.-J., Sangiorgi, F., Sinninghe Damsté, J.S. and Brinkhuis, H., in press: Arctic late Paleocene – Early Eocene paleoenvironments with special emphasis on the Paleocene – Eocene thermal maximum (Lomonosov Ridge, IODP Expedition 302), *Paleoceanography*.

Srifer, R.L. and Huber, M., 2007: Observational evidence for an ocean heat pump induced by tropical cyclones, *Nature*, **447**(7144): 577-580.

Weijers, J.W.H., Schouten, S., Sluijs, A., Brinkhuis, H. and Sinninghe Damsté, J.S., 2007: Warm arctic continents during the Palaeocene-Eocene thermal maximum, *Earth and Planetary Science Letters*, **261**(1-2): 230-238.

Westerhold, T., Röhl, U., Laskar, J., Raffi, I., Bowles, J., Lourens, L.J. and Zachos, J.C., 2007: On the duration of Magnetochrons C24r and C25n, and the timing of early Eocene global warming events: Implications from the ODP Leg 208 Walvis Ridge depth transect, *Paleoceanography*, **22**(PA2201): doi:10.1029/2006PA001322.

Zachos, J., Pagani, M., Sloan, L., Thomas, E. and Billups, K., 2001: Trends, rhythms, and aberrations in global climate 65 Ma to present, *Science*, **292**: 686-693.

Zachos, J.C., Wara, M.W., Bohaty, S., Delaney, M.L., Petrizzo, M.R., Brill, A., Bralower, T.J. and Premoli Silva, I., 2003: A transient rise in tropical sea surface temperature during the Paleocene-Eocene thermal maximum, *Science*, **302**: 1551-1554.

Zachos, J.C., Schouten, S., Bohaty, S., Quattlebaum, T., Sluijs, A., Brinkhuis, H., Gibbs, S. and Bralower, T.J., 2006: Extreme warming of mid-latitude coastal ocean during the Paleocene-Eocene Thermal Maximum: Inferences from TEX<sub>86</sub> and Isotope Data, *Geology*, **34**(9): 737-740.

Zeebe, R.E. and Zachos, J.C., 2007: Reversed deep-sea carbonate ion basin gradient during the Paleocene-Eocene thermal maximum, *Paleoceanography*, **22**(PA3301): doi:10.1029/2006PA001395.

## **Weldeab:**

Clark, P.U., Marshall, S.J., Clarke, G.K.C., Hostetler, S.W., Licciardi J.M. and Teller, J.T., 2001: Freshwater Forcing of Abrupt Climate Change During the last glaciation, *Science*, **293**: 283-287.

Janowiak, J.E. and Xie, P., 1999: CAMS\_OPI: A Global Satellite-Rain Gauge Merged Product for Real-Time Precipitation Monitoring Applications, *Journal of Climate*, **12**: 3335-3342.

Levitus, S. and Boyer, T.P., 1994: World Ocean Atlas 1994 (National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Service, U.S. Department of Commerce, Washington, D.C., 1994), vol. 4.

Petit, J.R., Jouzel, J., Raynaud, D., Barkov, N.I., Marnola, J.-M., Basile, I., Bender, M., Chappellaz, J., Davis, M., Delaygue, G., Delmotte, M., Kotlyakov, V.M., Legrand, M., Lipenkov, V.Y., Lorius, C., Pepin, L., Ritz, C., Saltzman, E. and Stievenard, M., 1999: Climate and atmospheric history of the past 420,000 years from the Vostok ice core, Antarctica, *Nature*, **399**: 429-436.

### **Yamamoto:**

Koutavas, A., Lynch-Stieglitz, J., Marchitto, T.M., and Sachs, J., 2002: El Niño-like pattern in ice age tropical Pacific sea surface temperature. *Science*, **297**: 226-230.

Moy, C.M., Seltzer, G.O., Rodbell, D.T., and Anderson, D.M., 2002: Variability of El Niño/Southern Oscillation activity at millennial timescales during the Holocene epoch. *Nature*, **240**: 162-165.

Oba, T., Irino, T., Yamamoto, M., Murayama, M., Takamura, A., and Aoki, K., 2006: Paleooceanographic change off central Japan since the last 144,000 years based on high-resolution oxygen and carbon isotope records. *Global and Planetary Change*, **53**: 5-20.