

## British Antarctic Survey publications 2008

### Publications are listed by programme

\*\* = NERC employees who are not BAS staff  
++ = collaborators in UK universities  
%% = collaborators in the UK non-university public sector  
## = overseas collaborators  
\$\$ = commercial sector collaborators

### Q4 Programmes

GEACEP: Greenhouse to Icehouse. Evolution of the Antarctic Cryosphere and Palaeoenvironment

### Refereed research papers 2008 listed in ISI database

ARAÚJO M.B.##, NOGUÉS-BRAVO D.##, DINIZ-FILHO J.A.F.##, **HAYWOOD A.M.**, VALDES P.J.++ & RAHBEK C.## 2008. Quaternary climate changes explain diversity among reptiles and amphibians. *Ecography*, **31**, No. 1, 8-15.

HAMBREY M.J.++, **SMELLIE J.L.**, NELSON A.E. & JOHNSON J.S. 2008. Late Cenozoic glacier-volcano interaction on James Ross Island and adjacent areas, Antarctic Peninsula region. *Geological Society of America Bulletin*, **120**, No. 5-6, 709-731.

**LUNT D.J.**, FLECKER R.++, VALDES P.J.++, SALZMANN U., GLADSTONE R.++ & HAYWOOD A.M.++ 2008. A methodology for targeting palaeo proxy data acquisition: a case study for the late Miocene. *Earth and Planetary Science Letters*, **271**, No. 1-4, 53-62.

**LUNT D.J.**, FOSTER G.L.++, HAYWOOD A.M.++ & STONE E.J.++ 2008. Late Pliocene Greenland glaciation controlled by a decline in atmospheric CO<sub>2</sub> levels. *Nature*, **454**, No. 7208, 1102-1105.

**LUNT D.J.**, RIDGWELL A.++, VALDES P.J.++ & SEALE A.++ 2008. "Sunshade World": a fully coupled GCM evaluation of the climatic impacts of geoengineering. *Geophysical Research Letters*, **35**, No. 12, L12710, doi:10.1029/2008GL033674, 5p.

**LUNT D.J.**, VALDES P.J.++, **HAYWOOD A.M.** & RUTT I.C.++ 2008. Closure of the Panama seaway during the Pliocene: implications for climate and Northern Hemisphere glaciation. *Climate Dynamics*, **30**, No. 1, 1-18.

**NELSON A.E.**, **SMELLIE J.L.**, WILLIAMS M.++ & MORETON S.G.\*\* 2008. Age geographical distribution and taphonomy of an unusual occurrence of mummified crabeater seals on James Ross Island, Antarctica. *Antarctic Science*, **20**, No. 5, 485-493.

**NELSON A.E., SMELLIE J.L., WILLIAMS M.++ & ZALASIEWICZ J.++** 2008. Late Miocene marine trace fossils from James Ross Island. *Antarctic Science*, **20**, No. 6, 591-592.

**SALZMANN U., HAYWOOD A.M.++, LUNT D.J., VALDES P.J.++ & HILL D.J.** 2008. A new global biome reconstruction and data-model comparison for the Middle Pliocene. *Global Ecology and Biogeography*, **17**, No. 3, 432-447.

**SMELLIE J.L.** 2008. Basaltic subglacial sheet-like sequences: evidence for two types with different implications for the inferred thickness of associated ice. *Earth-Science Reviews*, **88**, No. 1-2, 60-88.

**SMELLIE J.L., JOHNSON J.S., McINTOSH W.C.##, ESSER R.##, GUDMUNDSSON M.T.##, HAMBREY M.J.++ & VAN WYK DE VRIES B.##** 2008. Six million years of glacial history recorded in volcanic lithofacies of the James Ross Island Volcanic Group, Antarctic Peninsula. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **260**, No. 1-2, 122-148.

### **Books edited and other edited volumes**

**FLORINDO F.##, NELSON A.E. & HAYWOOD A.M.++**, eds. 2008. Antarctic cryosphere and Southern Ocean climate evolution (Cenozoic-Holocene) : Selected papers from the EGU Meeting, Vienna, April 2006 and XXIX SCAR Meeting, Hobart, July 2006. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **260**, No. 1-2, 1-298.

### **Book chapters**

**CRAME J.A.** 2008. Numbers of species in the tropics and at the poles. (In Benton, M.J. ed. *The seventy great mysteries of the natural world: unlocking the secrets of our planet*. London, Thames and Hudson, 137-140.)

### **Unrefereed publications**

**FLORINDO F.##, NELSON A.E. & HAYWOOD A.M.++** 2008. Introduction to 'Antarctic cryosphere and Southern Ocean climate evolution (Cenozoic-Holocene). *Palaeogeography, Palaeoclimatology, Palaeoecology*, **260**, No. 1-2, 1-7.

**SALZMANN U.** 2008. Review of *Deep-time perspectives on climate change: marrying the signal from computer models and biological proxies*. Edited by M. Williams, A.M. Haywood, F.J. Gregory and D.N. Schmidt. London, Geological Society, 2007. *Antarctic Science*, **20**, No. 6, 609-610.

CACHE: Climate and Chemistry: Forcings and Phasings in the Earth System

**Refereed research papers 2008 listed in ISI database**

- ABRAM N.J.**, CURRAN M.A.J.##, **MULVANEY R.**, VANCE T.## 2008. The preservation of methanesulphonic acid in frozen ice-core samples. *Journal of Glaciology*, **54**, No. 187, 680-684.
- ALLEN C.S. & SMELLIE J.L.** 2008. Volcanic features and hydrological setting of Southern Thule, South Sandwich Islands. *Antarctic Science*, **20**, No. 3, 301-308.
- BIONDI N.##, TREDICI M.R.##, TATON A.##, WILMOTTE A.##, **HODGSON D.A.**, LOSI D.## & MARINELLI F.## 2008. Cyanobacteria from benthic mats of Antarctic lakes as a source of new bioactivities. *Journal of Applied Microbiology*, **105**, No. 1, 105-115.
- DADIC R.##, SCHNEEBELI M.##, LEHNING M.##, **HUTTERLI M.A.** & OHMURA A.## 2008. Impact of the microstructure of snow on its temperature: a model validation with measurements from Summit, Greenland. *Journal of Geophysical Research*, **113**, No. D14, D14303, doi:10.1029/2007JD009562, 11p.
- EISELE F.L.##, DAVIS D.D.##, HELMIG D.##, OLTMANS S.J.##, NEFF W.##, HUEY L.G.##, TANNER D.J.##, CHEN G.##, CRAWFORD J.##, ARIMOTO R.##, BUHR M.##, MAULDIN L.##, **HUTTERLI M.A.**, DIBB J.E.##, BLAKE D.##, BROOKS S.B.##, JOHNSON B.##, ROBERTS J.M.##, WANG Y.##, TAN D.## & FLOCKE F.## 2008. Antarctic Tropospheric Chemistry Investigation (ANTCI) 2003 overview. *Atmospheric Environment*, **42**, No. 12, 2749-2761.
- LAMBERT F.##, DELMONTE B.##, PETIT J.R.##, BIGLER M.##, KAUFMANN P.R.##, **HUTTERLI M.A.**, STOCKER T.F.##, RUTH U.## & STEFFENSEN J.P.##, MAGGI V.## 2008. Dust-climate couplings over the past 800,000 years from the EPICA Dome C ice core. *Nature*, **452**, No. 7187, 616-619.
- REDA T.%%, PLUGGE C.M.##, **ABRAM N.J.** & HIRST J.%% 2008. Reversible interconversion of carbon dioxide and formate by an electroactive enzyme. *Proceedings of the National Academy of Sciences*, **105**, No. 31, 10654-10658.
- ROBERTS S.J.**, **HODGSON D.A.**, BENTLEY M.J.++, **SMITH J.A.**, MILLAR I.L.\*\*, OLIVE V.++ & SUGDEN D.E.++ 2008. The Holocene history of George VI Ice Shelf, Antarctic Peninsula from clast-provenance analysis of epishelf lake sediments. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **259**, No. 2-3, 258-283.
- RUTH U.##, BARBANTE C.##, BIGLER M.##, DELMONTE B.##, FISCHER H.##, GABRIELLI P.##, GASPARI V.##, KAUFMANN P.##, LAMBERT F.##, MAGGI V.##, MARINO F.##, PETIT J.R.##, UDISTI R.##, WAGENBACH D.##, WEGNER A.## & **WOLFF E.W.** 2008. Proxies and measurement techniques for mineral dust in Antarctic ice cores. *Environmental Science & Technology*, **42**, No. 15, 5675-5681.
- SAIZ-LOPEZ A.++, PLANE J.M.C.++, MAHAJAN A.S.++, **ANDERSON P.S.**, **BAUGITTE S.J.**, **JONES A.E.**, **ROSCOE H.K.**, **SALMON R.A.**, BLOSS W.J.++, LEE J.D.++ & HEARD D.E.++ 2008. On the vertical distribution of

boundary layer halogens over coastal Antarctica: implications for O<sub>3</sub>, HO<sub>x</sub>, NO<sub>x</sub> and the Hg lifetime. *Atmospheric Chemistry and Physics*, **8**, No. 4, 887-900.

SAUNDERS K.M.##, **HODGSON D.A.**, HARRISON J.## & McMINN A.## 2008. Palaeoecological tools for improving the management of coastal ecosystems: a case study from Lake King (Gippsland Lakes) Australia. *Journal of Paleolimnology*, **40**, No. 1, 33-47.

SCHÖNHARDT A.##, RICHTER A.##, WITTRÖCK F.##, KIRK H.##, OETJEN H.##, **ROSCOE H.K.** & BURROWS J.P.## 2008. Observations of iodine monoxide columns from satellite. *Atmospheric Chemistry and Physics*, **8**, No. 3, 637-653.

STEFFENSEN J.P.##, ANDERSEN K.K.##, BIGLER M.##, CLAUSEN H.B.##, DAHL-JENSEN D.##, FISCHER H.##, GOTO-AZUMA K.##, HANSSON M.##, JOHNSEN S.J.##, JOUZEL J.##, MASSON-DELMOTTE V.##, POPP T.##, RASMUSSEN S.O.##, **RÖTHLISBERGER R.**, RUTH U.##, STAUFFER B.##, SIGGAARD-ANDERSEN M.L.##, SVEINBJÖRNSDÓTTIR A.E.##, SVENSSON A.## & WHITE J.W.C.## 2008. High-resolution Greenland ice core data show abrupt climate change happens in a few years. *Science*, **321**, No. 5889, 680-684.

SVENSSON A.##, ANDERSEN K.K.##, BIGLER M.##, CLAUSEN H.B.##, DAHL-JENSEN D.##, DAVIES S.M.++, JOHNSEN S.J.##, MUSCHELER R.##, PARRENIN F.##, RASMUSSEN S.O.##, **RÖTHLISBERGER R.**, SEIERSTAD I.##, STEFFENSEN J.P.## & VINTHER B.M.## 2008. A 60 000 year Greenland stratigraphic ice core chronology. *Climate of the Past*, **4**, No. 1, 47-57.

**WOLFF E.W.**, **JONES A.E.**, **BAUGITTE S.J.** & **SALMON R.A.** 2008. The interpretation of spikes and trends in concentration of nitrate in polar ice cores, based on evidence from snow and atmospheric measurements. *Atmospheric Chemistry and Physics*, **8**, No. 18, 5627-5634.

### **Unrefereed publications**

**WOLFF E.W.** 2008. Ancient air in an Antarctic ice core. *Catalyst*, **18**, No. 4, 9-12.

**WOLFF E.W.** 2008. Cool chemistry. *Catalyst*, **18**, No. 4, 4-5.

**WOLFF E.W.** 2008. The past 800 ka viewed through Antarctic ice cores. *Episodes*, **31**, No. 2, 219-221.

### GRADES: Glacial Retreat in Antarctica and Deglaciation of the Earth System

#### **Refereed research papers 2008 listed in ISI database**

AÐALGEIRSDÓTTIR G.++, MURRAY T.++, **SMITH A.M.**, KING M.A.++, **MAKINSON K.**, **NICHOLLS K.W.** & BEHAR A.## 2008. Tidal influence on Rutford Ice Stream, West Antarctica: observations of surface flow and basal processes

from closely-spaced GPS and passive seismic stations. *Journal of Glaciology*, **54**, No. 187, 715-724.

**BINGHAM R.G.**, HUBBARD A.L.++, NIENOW P.W.++ & SHARP M.J.## 2008. An investigation into the mechanisms controlling seasonal speedup events at a High Arctic glacier. *Journal of Geophysical Research*, **113**, No. F2, F02006, doi:10.1029/2007JF000832, 13p.

COWAN E.A.##, **HILLENBRAND C.-D.**, HASSLER L.E.## & AKE M.T.## 2008. Coarse-grained terrigenous sediment deposition on continental rise drifts: a record of Plio-Pleistocene glaciation on the Antarctic Peninsula. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **265**, No. 3-4, 275-291.

DUNLOP P.++, CLARK C.D.++ & **HINDMARSH R.C.A.** 2008. Bed Ribbing Instability Explanation: testing a numerical model of ribbed moraine formation arising from coupled flow of ice and subglacial sediment. *Journal of Geophysical Research*, **113**, No. F3, F03005, doi:10.1029/2007JF000954, 15p.

EISEN O.##, FREZZOTTI M.##, GENTHON C.##, ISAKSSON E.##, MAGAND O.##, VAN DEN BROEKE M.R.##, DIXON D.A.##, EKAYKIN A.##, HOLMLUND P.##, KAMEDA T.##, KARLÖF L.##, KASPARI S.##, LIPENKOV V.Y.##, OERTER H.##, TAKAHASHI S.## & **VAUGHAN D.G.** 2008. Ground-based measurements of spatial and temporal variability of snow accumulation in East Antarctica. *Reviews of Geophysics*, **46**, No. 2, RG2001, doi10.1029/2006RG000218, 39p.

HANSOM J.D.++, EVANS D.J.A.++, SANDERSON D.C.W.++, **BINGHAM R.G.** & BENTLEY M.J.++ 2008. Constraining the age and formation of stone runs in the Falkland Islands using Optically Stimulated Luminescence. *Geomorphology*, **94**, No. 1-2, 117-130.

**HILLENBRAND C.-D.**, CAMERLENGHI A.##, COWAN E.A.##, HERNÁNDEZ-MOLINA F.J.##, LUCCHI R.G.##, REBESCO M.## & UENZELMANN-NEBEN G.## 2008. The present and past bottom-current flow regime around the sediment drifts on the continental rise west of the Antarctic Peninsula. *Marine Geology*, **255**, No. 1-2, 55-63.

**HILLENBRAND C.-D.**, MORETON S.G., CABURLOTTO A.##, **PUDSEY C.J.**, LUCCHI R.G.##, **SMELLIE J.L.**, **BENETTI S.**, GROBE H.##, HUNT J.B.++ & **LARTER R.D.** 2008. Volcanic time-markers for Marine Isotopic Stages 6 and 5 in Southern Ocean sediments and Antarctic ice cores: implications for tephra correlations between palaeoclimatic records. *Quaternary Science Reviews*, **27**, No. 5-6, 518-540.

**JOHNSON J.S.**, BENTLEY M.J.++ & GOHL K.## 2008. First exposure ages from the Amundsen Sea Embayment, West Antarctica: the Late Quaternary context for recent thinning of Pine Island, Smith and Pope Glaciers. *Geology*, **36**, No. 3, 223-226.

**JOHNSON J.S., HILLENBRAND C.-D., SMELLIE J.L. & ROCCHI S.##** 2008. The last deglaciation of Cape Adare, northern Victoria Land, Antarctica. *Antarctic Science*, **20**, No. 6, 581-587.

**KING E.C., SMITH A.M., MURRAY T.++ & STUART G.W.++** 2008. Glacier-bed characteristics of midtre Lovénbreen, Svalbard from high-resolution seismic and radar surveying. *Journal of Glaciology*, **54**, No. 184, 145-156.

**MURRAY T.++, CORR H.F.J., FORIERI A.++ & SMITH A.M.** 2008. Contrasts in hydrology between regions of basal deformation and sliding beneath Rutford Ice Stream, West Antarctica, mapped using radar and seismic data. *Geophysical Research Letters*, **35**, No. 12, L12504, doi:10.1029/2008GL033681, 5p.

**PARRY V.++, NIENOW P.++, MAIR D.++ & SCOTT J.B.T.** 2008. Greenland: bringing together remote sensing and fieldwork. *Scottish Geographical Journal*, **124**, No. 2-3, 211-217.

**THATJE S.++, HILLENBRAND C.-D., MACKENSEN A.## & LARTER R.D.** 2008. Life hung by a thread: endurance of Antarctic fauna in glacial periods. *Ecology*, **89**, No. 3, 682-692.

**VAUGHAN D.G., CORR H.F.J., SMITH A.M., PRITCHARD H. & SHEPHERD A.++** 2008. Flow-switching and water piracy between Rutford Ice Stream and Carlson Inlet, West Antarctica. *Journal of Glaciology*, **54**, No. 184, 41-48.

#### **Refereed research papers 2008 listed in ISI database**

**CORR H.F.J. & VAUGHAN D.G.** 2008. A recent volcanic eruption beneath the West Antarctic ice sheet. *Nature Geoscience*, **1**, No. 2, 122-125.

#### **Unrefereed publications**

**MURRAY T.++, RUTT I.++ & VAUGHAN D.G.** 2008. The heat is on. *Physics World*, **21**, No. 5, 24-29.

BIOFLAME: Biodiversity, Functions, Limits and Adaptation from Molecules to Ecosystems

#### **Refereed research papers 2008 listed in ISI database**

**BARNES D.K.A.** 2008. A benthic richness hotspot in the Southern Ocean: slope and shelf cryptic benthos of Shag Rocks. *Antarctic Science*, **20**, No. 3, 263-270.

**BARNES D.K.A., LINSE K., ENDERLEIN P., SMALE D.A., FRASER K.P.P. & BROWN M.** 2008. Marine richness and gradients at Deception Island, Antarctica. *Antarctic Science*, **20**, No. 3, 271-279.

**BRIDGE P.D., SCHLITT T., CANNON P.F.%, BUDDIE A.G.%, BAKER M.% & BORMAN A.M.%** 2008. Domain II hairpin structure in ITS1 sequences as an aid in differentiating recently evolved animal and plant pathogenic fungi. *Mycopathologia*, **166**, 1-16.

CANNON P.F.%, BUDDIE A.G.% & **BRIDGE P.D.** 2008. The typification of *Colletotrichum gloeosporioides*. *Mycotaxon*, **104**, 189-204.

CARAPPELLI A.##, COMANDI S.##, **CONVEY P.**, NARDI F.## & FRATI F.## 2008. The complete mitochondrial genome of the Antarctic springtail *Cryptopygus antarcticus* (Hexapoda: Collembola). *BMC Genomics*, **9**, doi:10.1186/1471-2164-315, 12p.

**CLARK M.S. & BURNS G.** 2008. Characterisation of the warm acclimated protein gene (wap65) in the Antarctic plunderfish (*Harpagifer antarcticus*). *Mitochondrial DNA*, **19**, No. 1, 50-55.

**CLARK M.S., FRASER K.P.P., BURNS G. & PECK L.S.** 2008. The HSP70 heat shock response in the Antarctic fish *Harpagifer antarcticus*. *Polar Biology*, **31**, No. 2, 171-180.

**CLARK M.S., FRASER K.P.P. & PECK L.S.** 2008. Antarctic marine molluscs do have an HSP70 heat shock response. *Cell Stress and Chaperones*, **13**, No. 1, 39-49.

**CLARK M.S., FRASER K.P.P. & PECK L.S.** 2008. Lack of an HSP70 heat shock response in two Antarctic marine invertebrates. *Polar Biology*, **31**, No. 9, 1059-1065.

**CLARK M.S., GEISSLER P., WALLER C., FRASER K.P.P., BARNES D.K.A., PECK L.S.** 2008. Low heat shock thresholds in wild Antarctic inter-tidal limpets (*Nacella concinna*). *Cell Stress and Chaperones*, **13**, No. 1, 51-58.

**CONVEY P., GIBSON J.A.E.##, HILLENBRAND C.-D., HODGSON D.A., PUGH P.J.A.++, SMELLIE J.L. & STEVENS M.I.##** 2008. Antarctic terrestrial life - challenging the history of the frozen continent? *Biological Reviews*, **83**, No. 2, 103-117.

CROMER L.##, GIBSON J.A.E.##, **McINNES S.J.** & AGIUS J.T.## 2008. Tardigrade remains from lake sediments. *Journal of Paleolimnology*, **39**, No. 1, 143-150.

ENGELEN A.##, **CONVEY P., HODGSON D.A., WORLAND M.R. & OTT S.##** 2008. Soil properties of an Antarctic inland site: implications for ecosystem development. *Polar Biology*, **31**, No. 12, 1453-1460.

GAREY J.R.##, **McINNES S.J.** & NICHOLS P.B.## 2008. Global diversity of tardigrades (Tardigrada) in freshwater. *Hydrobiologia*, **595**, 101-106.

**GRIFFITHS H.J., LINSE K. & BARNES D.K.A.** 2008. Distribution of macrobenthic taxa across the Scotia Arc, Southern Ocean. *Antarctic Science*, **20**, No. 3, 213-226.

KAISER S.##, BARNES D.K.A., LINSE K. & BRANDT A.## 2008. Epibenthic macrofauna associated with the shelf and slope of a young and isolated Southern Ocean island. *Antarctic Science*, **20**, No. 3, 281-290.

KUKLIŃSKI P.## & BARNES D.K.A. 2008. Structure of intertidal and subtidal assemblages in temperate vs Arctic boulder shores. *Polish Polar Research*, **29**, No. 3, 203-218.

LINSE K., WALKER L.J.++ & BARNES D.K.A. 2008. Biodiversity of echinoids and their epibionts around the Scotia arc, Antarctica. *Antarctic Science*, **20**, No. 3, 227-244.

PECK L.S. 2008. Brachiopods and climate change. *Earth and Environmental Science Transactions of the Royal Society of Edinburgh*, **98**, No. 3, 451-456.

PECK L.S., WEBB K.E., MILLER A., CLARK M.S. & HILL T. 2008. Temperature limits to activity, feeding and metabolism in the Antarctic starfish *Odontaster validus*. *Marine Ecology Progress Series*, **358**, 181-189.

PURAC J., BURNS G., THORNE M.A.S., GRUBOR-LAJŠIĆ G.##, WORLAND M.R. & CLARK M.S. 2008. Cold hardening processes in the Antarctic springtail *Cryptopygus antarcticus*: clues from a microarray. *Journal of Insect Physiology*, **54**, No. 9, 1356-1362.

SCHIAPARELLI S.##, OLIVERIO M.##, TAVIANI M.##, GRIFFITHS H.J., LÖRZ A.-N.## & ALBERTELLI G.## 2008. Circumpolar distribution of the pycnogonid-ectoparasitic gastropod *Dickdellia labioflecta* (Dell, 1990) (Mollusca: Zeratulidae). *Antarctic Science*, **20**, No. 5, 497-498.

SEEAR P.J. & SWEENEY G.E.++ 2008. Stability of RNA isolated from post-mortem tissues of Atlantic salmon (*Salmo salar* L.). *Fish Physiology and Biochemistry*, **34**, No. 1, 19-24.

SMALE D.A. 2008. Continuous benthic community change along a depth gradient in Antarctic shallows: evidence of patchiness but not zonation. *Polar Biology*, **31**, No. 2, 189-198.

SMALE D.A. 2008. Ecological traits of benthic assemblages in shallow Antarctic waters: does ice scour disturbance select for small, mobile, secondary consumers with high dispersal potential? *Polar Biology*, **31**, No. 10, 1225-1231.

SMALE D.A. 2008. Spatial variability in the distribution of dominant shallow-water benthos at Adelaide Island, Antarctica. *Journal of Experimental Marine Biology and Ecology*, **357**, No. 2, 140-148

SMALE D.A. & BARNES D.K.A. 2008. Likely responses of the Antarctic benthos to climate-related changes in physical disturbance during the 21st century based primarily on evidence from the west Antarctic Peninsula region. *Ecography*, **31**, No. 3, 289-305.

**SMALE D.A., BARNES D.K.A., FRASER K.P.P. & PECK L.S.** 2008. Benthic community response to iceberg scouring at an intensely disturbed shallow water site at Adelaide Island Antarctica. *Marine Ecology Progress Series*, **355**, 85-94.

**SMALE D.A., BROWN K.M., BARNES D.K.A., FRASER K.P.P. & CLARKE A.** 2008. Ice scour disturbance in Antarctic waters. *Science*, **321**, No. 5887, 371.

van de WOUW M.##, van DIJK P.## & HUISKES A.H.L.## 2008. Regional genetic diversity patterns in Antarctic hairgrass (*Deschampsia antarctica* Desv.). *Journal of Biogeography*, **35**, No. 2, 365-376.

**WALLER C.** 2008. Variability in intertidal communities along a latitudinal gradient in the Southern Ocean. *Polar Biology*, **31**, No. 7, 809-816.

**WORLAND M.R. & CONVEY P.** 2008. The significance of the moult cycle to cold tolerance in the Antarctic collembolan *Cryptopygus antarcticus*. *Journal of Insect Physiology*, **54**, No. 8, 1281-1285.

#### **Refereed research papers 2008 NOT listed in ISI database**

CAMPBELL H.A.++, **FRASER K.P.P.**, BISHOP C.M.++, **PECK L.S.** & EGGINTON S.++ 2008. Hibernation in an Antarctic fish: on ice for winter. *PLoS One*, **3**, No. 3, e1843, doi:1371/journal.pone.0001743, 9p.

#### **Books authored**

THOMAS D.++, FOGG G.E.++, **CONVEY P.**, FRITSEN C.H.##, GILI J.-M.##, GRADINGER R.##, LAYBOURN-PARRY J.##, REID K.## & **WALTON D.W.H.** 2008. *The biology of polar regions*. Oxford, Oxford University Press, xiv, 394p.

#### **Book chapters**

**CONVEY P.** 2008. Non-native species in Antarctic terrestrial and freshwater environments: presence sources impacts and predictions. (In Rogan-Finnemore, M., ed. Non-native species in the Antarctic: proceedings. Christchurch, N.Z., Gateway Antarctica. *Gateway Antarctica special publication series*, no. 0801, 97-130.)

FRENOT Y.##, **CONVEY P.**, LEBOUVIER M.##, CHOWN S.L.##, WHINAM J.##, SELKIRK P.M.##., SKOTNICKI M.L.## & BERGSTROM D.M.## 2008. Antarctic and subantarctic biological invasions: sources extents impacts and implications. (In Rogan-Finnemore, M., ed. Non-native species in the Antarctic: proceedings. Christchurch, N.Z., Gateway Antarctica. *Gateway Antarctica special publication series*, no. 0801, 53-96.)

#### **Unrefereed publications**

**CONVEY P.** 2008. Review of *Arctic alpine ecosystems and people in a changing environment* edited by J.B. Orbaek and others. Springer, 2007. *Polar Record*, **44**, No. 231, 367-369.

**LINSE K.** 2008. Antarctic marine biodiversity - a taxonomic crisis? (Guest editorial). *Antarctic Science*, **20**, No. 3, 209.

**LINSE K.** 2008. Introduction. The BIOPEARL expedition to the Scotia Sea in 2006. *Antarctic Science*, **20**, No. 3, 211-212.

#### DISCOVERY 2010: Integrating Southern Ocean Ecosystems into the Earth System

##### **Refereed research papers 2008 listed in ISI database**

**ATKINSON A., SIEGEL V.##, PAKHOMOV E.A.##, ROTHERY P.\*\***, LOEB V.##, ROSS R.M.##, QUETIN L.B., **SCHMIDT K., FRETWELL P.T., MURPHY E.J., TARLING G.A. & FLEMING A.H.** 2008. Oceanic circumpolar habitats of Antarctic krill. *Marine Ecology Progress Series*, **362**, 1-23.

**BARRATT I.M.++, JOHNSON M.P.++, COLLINS M.A. & ALLCOCK A.L.++** 2008. Female reproductive biology of two sympatric incirrate octopod species, *Adelieledone polymorpha* (Robson 1930) and *Pareledone turqueti* (Joubin 1905) (Cephalopoda: Octopodidae), from South Georgia. *Polar Biology*, **31**, No. 5, 583-594.

**BOEHME L.++, THORPE S.E., BIUW M.++, FEDAK M.A.++ & MEREDITH M.P.** 2008. Monitoring Drake Passage with elephant seals: frontal structures and snapshots of transport. *Limnology and Oceanography*, **53**, No. 5 Pt. 2, 2350-2360.

**CAMPAGNA C.##, SANDERSON E.W.##, COPPOLILLO P.B.##, FALABELLA V.##, PIOLA A.R.##, STRINDBERG S.## & CROXALL J.P.** 2008. A species approach to marine ecosystem conservation. *Aquatic Conservation: Marine and Freshwater Ecosystems*, **17**, Suppl. 1, S122-S147.

**CLARKE S., REID W.D.K., COLLINS M.A. & BELCHIER M.** 2008. Biology and distribution of South Georgia icefish (*Pseudochaenichthys georgianus*) around South Georgia and Shag Rocks. *Antarctic Science*, **20**, No. 4, 343-353.

**COLLINS M.A., SHREEVE R.S., FIELDING S. & THURSTON M.H.\*\*** 2008. Distribution, growth, diet and foraging behaviour of the yellow-fin notothen (*Patagonotothen guntheri*) on the Shag Rocks shelf (Southern Ocean). *Journal of Fish Biology*, **72** No. 1, 271-286.

**COLLINS M.A., XAVIER J.C., JOHNSTON N.M., NORTH A.W., ENDERLEIN P., TARLING G.A., WALUDA C.M., HAWKER E.J. & CUNNINGHAM N.** 2008. Patterns in the distribution of myctophid fish in the northern Scotia Sea ecosystem. *Polar Biology*, **31**, No. 7, 837-851.

**FORCADA J., TRATHAN P.N. & MURPHY E.J.** 2008. Life history buffering in Antarctic mammals and birds against changing patterns of climate and environmental variation. *Global Change Biology*, 14, No. 11, 2473-2488.

**GONZÁLEZ-SOLÍS J.,## CROXALL J.P. & AFANASYEV V.** 2008. Offshore spatial segregation in giant petrels *Macronectes* spp.: differences between species, sexes and seasons. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 17, Suppl. 1, S22-S36.

HEATH M.R.%%, RASMUSSEN J.%%, AHMED Y.++, ALLEN J.++, ANDERSON C.I.H.++, BRIERLEY A.S.++, BROWN L.\*\*, BUNKER A.J.++, COOK K.%%, DAVIDSON R.++, FIELDING S.++, GURNEY W.S.C.++, HARRIS R.\*\*, HAY S.%%, HENSON S.++, **HIRST A.G.**, HOLLIDAY N.P.++, INGVARSDOTTIR A.++, IRIGOIEN X.++, LINDEQUE P.\*\*, MAYOR D.J.++, MONTAGNES D.++, MOFFAT C.%%, POLLARD R.++, RICHARDS S.%%, SAUNDERS R.A.++, SIDEY J.%%, SMERDON G.\*\*, SPEIRS D.C.++, WALSHAM P.%%, WANIEK J.++, WEBSTER L.%% & WILSON D.++ 2008. Spatial demography of *Calanus finmarchicus* in the Irminger Sea. *Progress in Oceanography*, 76, No. 1, 39-88.

HOGG A.M.##, **MEREDITH M.P.**, BLUNDELL J.R.\*\* & WILSON C.\*\* 2008. Eddy heat flux in the Southern Ocean: response to variable wind forcing. *Journal of Climate*, 21, No. 4, 608-620.

HUNT B.P.V.##, PAKHOMOV E.A.##, HOSIE G.W.##, SIEGEL V.##, **WARD P.** & BERNARD K.S.## 2008. Pteropods in Southern Ocean ecosystems. *Progress in Oceanography*, 78, No. 3, 193-221.

JOHNSON M.L.++ & **TARLING G.A.** 2008. Influence of individual state on swimming capacity and behaviour of Antarctic krill (*Euphausia superba*). *Marine Ecology Progress Series*, 366, 99-110.

KATTNER G.##, HAGEN W.##, LEE R.F.##, CAMPBELL R.##, DIEBEL D.##, FALK-PETERSEN S.##, GRAEVE M.##, HANSEN B.W.##, HIRCHE H.-J.##, JÓNASDÓTTIR S.H.##, MADSEN M.L.##, MAYZAUD P.##, MULLER-NAVARRA D.##, NICHOLS P.D.##, PAFFENHÖFER G.-A.##, **POND D.W.**, SAITO H.##, STUBING D.## & VIRTUE P.## 2007. Perspectives on marine zooplankton lipids. *Canadian Journal of Fisheries and Aquatic Sciences*, 64, No. 11, 1628-1639.

KEMP K.M.++, **FRASER K.P.P.**, COLLINS M.A. & PRIEDE I.G.++ 2008. Seasonal variation in the white muscle biochemical composition of deep-sea macrourids in the North-east Atlantic. *Marine Biology*, 155, No. 1, 37-49.

KEMP K.M.++, JAMIESON A.J.++, BAGLEY P.M.++, **COLLINS M.A.** & PRIEDE I.G.++ 2008. A new technique for periodic bait release at a deep-sea camera platform: first results from the Charlie-Gibbs Fracture Zone, Mid-Atlantic Ridge. *Deep-Sea Research Part II*, 55, No. 1-2, 218-228.

**KORB R.E., WHITEHOUSE M.J., ATKINSON A. & THORPE S.E.** 2008. Magnitude and maintenance of the phytoplankton bloom at South Georgia: a naturally iron-replete environment. *Marine Ecology Progress Series*, **368**, 75-91.

**LE QUÉRÉ C., RODENBECK C.##, BUITENHUIS E.T.##, CONWAY T.J.##, LANGENFELDS R.L.##, GOMEZ A.##, LABUSCHAGNE C.##, RAMONET M.##, NAKAZAWA T.##, METZL N.##, GILLETT N.P.++ & HEIMANN M.##**2008. Response to comments on "Saturation of the Southern Ocean CO<sub>2</sub> sink due to recent climate change". *Science*, **319**, No. 5863, 570.

**MEREDITH M.P., MURPHY E.J., HAWKER E.J., KING J.C. & WALLACE M.I.** 2008. On the interannual variability of ocean temperatures around South Georgia, Southern Ocean: forcing by El Niño/Southern Oscillation and the Southern Annular Mode. *Deep-Sea Research Part II*, **55**, No. 18-19, 2007-2022.

**PHILLIPS R.A., CROXALL J.P., SILK J.R.D. & BRIGGS D.R.** 2008. Foraging ecology of albatrosses and petrels from South Georgia: two decades of insights from tracking technologies. *Aquatic Conservation: Marine and Freshwater Ecosystems*, **17**, Suppl. 1, S6-S21.

**RAYNER M.J.##, HAUBER M.E.##, CLOUT M.N.##, SELDON D.S.##, VAN DIJKEN S.##, BURY S.## & PHILLIPS R.A.** 2008. Foraging ecology of the Cook's petrel *Pterodroma cookii* during the austral breeding season: a comparison of its two populations. *Marine Ecology Progress Series*, **370**, 271-284.

**REED T.E.++, DAUNT F.\*\*, HALL M.E.++, PHILLIPS R.A., WANLESS S.\*\* & CUNNINGHAM E.J.A.++** 2008. Parasite treatment affects maternal investment in sons. *Science*, **321**, No. 5896, 1681-1682.

**REID K., CROXALL J.P. & MURPHY E.J.** 2008. The power of ecosystem monitoring. *Aquatic Conservation: Marine and Freshwater Ecosystems*, **17**, Suppl. 1, S79-S92.

**RITZ M.S.##, MILLAR C.D.##, MILLER G.D.##, PHILLIPS R.A., RYAN P.G.##, STERNKOPF V.##, LIEBERS-HELBIG D.## & PETER H.-U.##** 2008. Phylogeography of the southern skua complex - rapid colonization of the southern hemisphere during a glacial period and reticulate evolution. *Molecular Phylogenetics and Evolution*, **49**, No. 1, 292-303.

**STANILAND I.J. & ROBINSON S.L.** 2008. Segregation between the sexes: Antarctic fur seals, *Arctocephalus gazella*, foraging at South Georgia. *Animal Behaviour*, **75**, No. 4, 1581-1590.

**STEVENS C.J.##, LIMÉN H.##, POND D.W., GÉLINAS Y.## & JUNIPER S.K.##** 2008. Ontogenetic shifts in the trophic ecology of two alvinocaridid shrimp species at hydrothermal vents on the Mariana Arc, western Pacific Ocean. *Marine Ecology Progress Series*, **356**, 225-237.

**TARLING G.A. & CUZIN-ROUDY J.##** 2008. External parasite infestation depends on moult-frequency and age in Antarctic krill (*Euphausia superba*). *Polar Biology*, **31**, No. 2, 121-130.

**TRATHAN P.N., BISHOP C.++, MacLEAN G.++, BROWN P.++, FLEMING A.H. & COLLINS M.A.** 2008. Linear tracks and restricted temperature ranges characterise penguin foraging pathways. *Marine Ecology Progress Series*, **370**, 285-294.

**VARGAS F.H.++, BARLOW S.++, HART T., JIMENEZ-UZCÁTEGUI G.##, CHAVEZ J.##, NARANJO S.## & MACDONALD D.W.++** 2008. Effects of climate variation on the abundance and distribution of flamingos in the Galapagos Islands. *Journal of Zoology*, **276**, No. 3, 252-265.

**VOGT M.##, STEINKE M.++, TURNER S.++, PAULINO A.##, MEYERHÖFER M.##, RIEBESELL U.##, LE QUÉRÉ C. & LISS P.++** 2008. Dynamics of dimethylsulphoniopropionate and dimethylsulphide under different CO<sub>2</sub> concentrations during a mesocosm experiment. *Biogeosciences*, **5**, No. 2, 407-419

**WALUDA C.M., GRIFFITHS H.J. & RODHOUSE P.G.** 2008. Remotely sensed spatial dynamics of the *Illex argentinus* fishery, Southwest Atlantic. *Fisheries Research*, **91**, No. 2-3, 196-202.

**WARD P., MEREDITH M.P., WHITEHOUSE M.J. & ROTHERY P.** 2008. The summertime plankton community at South Georgia (Southern Ocean): comparing the historical (1926/1927) and modern (post 1995) records. *Progress in Oceanography*, **78**, No. 3, 241-256.

**WHITEHOUSE M.J., KORB R.E., ATKINSON A., THORPE S.E. & GORDON M.** 2008. Formation transport and decay of an intense phytoplankton bloom within the High-Nutrient Low-Chlorophyll belt of the Southern Ocean. *Journal of Marine Systems*, **70**, No. 1-2, 150-167.

**WHITEHOUSE M.J., MEREDITH M.P., ROTHERY P., ATKINSON A., WARD P. & KORB R.E.** 2008. Rapid warming of the ocean around South Georgia, Southern Ocean, during the 20th century: forcings, characteristics and implications for lower trophic levels. *Deep-Sea Research Part I*, **55**, No. 10, 1218-1228.

#### **Refereed research papers 2008 NOT listed in ISI database**

**FULLER W.J.++, BRODERICK A.C.++, PHILLIPS R.A., SILK J.R.D. & GODLEY B.J.++** 2008. The utility of geolocating light loggers for indicating at-sea movements in sea turtles. *Endangered Species Research*, **4**, No. 1-2, 139-146.

**TAKAHASHI A.##, OCHI D.##, WATANUKI Y.##, DEGUCHI T.##, OKA N.##, AFANASYEV V., FOX J.W. & TRATHAN P.N.** 2008. Post-breeding movement and activities of two streaked shearwaters in the north-western Pacific. *Ornithological Science*, **7**, No. 1, 29-35.

## Book chapters

HEWITT R.P.##, JONES C.D.## & EVERSON I. 2008. Reconciling fisheries with conservation: three examples from the Southern Ocean. (In Nielsen, J. and 5 others, eds. Reconciling fisheries with conservation: Proceedings of the Fourth World Fisheries Congress. *American Fisheries Society symposium*, **49**, 1681-1697.)

## Unrefereed publications

COLLINS M.A. 2008. Review of *Aspects of illegal, unreported and unregulated fishing in the Southern Ocean* by R.J. Baird. Berlin, Springer, 2006. *Antarctic Science*, **20**, No. 3, 309.

LE QUÉRÉ C. 2008. Saturated sink. *Planet Earth*, Summer 2008, 20-21.

REID K. & CLARKE A. 2008. John Croxall and marine conservation biology: an introduction to the symposium. *Aquatic Conservation: Marine and Freshwater Ecosystems*, **17**, Suppl. 1, S2-S5.

## ACES: Antarctic Climate and the Earth System

### Refereed research papers 2008 listed in ISI database

ANDERSON P.S. & NEFF W.D.## 2008. Boundary layer physics over snow and ice. *Atmospheric Chemistry and Physics*, **8**, No. 13, 3563-3582.

BRACEGIRDLE T.J., CONNOLLEY W.M. & TURNER J. 2008. Antarctic climate change over the twenty first century. *Journal of Geophysical Research*, **113**, No. D3, D03103, doi:10.1029/2007JD008933, 13p.

CONNOLLEY W.M. 2008. Comment on "Was the 2003 European summer heat wave unusual in a global context?" by Thomas N. Chase et al. *Geophysical Research Letters*, **35**, No. 2, L02703, doi:10.1029/2007GL031171, 2p.

DOWDESWELL J.A.++, EVANS J.++, MUGFORD R.++, GRIFFITHS G.++, McPHAIL S.D.++, MILLARD N.W.++, STEVENSON P.++, BRANDON M.A.++, BANKS C.++, HEYWOOD K.J.++, PRICE M.R.++, DODD P.A.++, JENKINS A., NICHOLLS K.W., HAYES D., ABRAHAMSEN E.P., TYLER P.++, BETT B.++, JONES D.++, WADHAMS P.++, WILKINSON J.P.++, STANSFIELD K.++ & ACKLEY S.F.## 2008. Autonomous underwater vehicles (AUVs) and investigations of the ice-ocean interface in Antarctic and Arctic waters. *Journal of Glaciology*, **54**, No. 187, 661-672.

HENNEMUTH B.##, WEISS A., BOSENBERG J.##, JACOB D.##, LINNÉ H.##, PETERS G.## & PFEIFER S.## 2008. Quality assessment of water cycle parameters in REMO by radar-lidar synergy. *Atmospheric Chemistry and Physics*, **8**, No. 2, 287-308.

**HOLLAND P.R.** 2008. A model of tidally dominated ocean processes near ice shelf grounding lines. *Journal of Geophysical Research*, **113**, No. C11, C11002, doi:10.1029/2007JC004576, 15p.

**HOLLAND P.R., JENKINS A. & HOLLAND D.M.##** 2008. The response of ice shelf basal melting to variations in ocean temperature. *Journal of Climate*, **21**, No. 11, 2558-2572.

**JENKINS A. & JACOBS S.S.##** 2008. Circulation and melting beneath George VI Ice Shelf Antarctica. *Journal of Geophysical Research*, **113**, No. C4, C04013, doi:10.1029/2007JC004449, 18p.

**KARPECHKO A.Yu.++, GILLETT N.P.++, MARSHALL G.J. & SCAIFE A.A.++** 2008. Stratospheric influence on circulation changes in Southern Hemisphere troposphere in coupled climate models. *Geophysical Research Letters*, **35**, No. 20, L20806, doi:10.1029/2008GL035354, 5p.

**KING J.C., LACHLAN-COPE T.A., LADKIN R.S. & WEISS A.** 2008. Airborne measurements in a stable boundary layer over the Larsen Ice Shelf, Antarctica. *Boundary-Layer Meteorology*, **127**, No. 3, 413-428.

**LUBIN D.##, WITTENMYER R.##, BROMWICH D.H.## & MARSHALL G.J.** 2008. Antarctic Peninsula mesoscale cyclone variability and climatic impacts influenced by the SAM. *Geophysical Research Letters*, **35**, No. 2, L02808, doi:10.1029/2007GL032170, 4p.

**MAKSYM T. & MARKUS T.##** 2008. Antarctic sea ice thickness and snow-to-ice conversion from atmospheric reanalysis and passive microwave snow depth. *Journal of Geophysical Research*, **113**, No. C2, C02S12, doi:10.1029/2006JC004085, 18p.

**MASSOM R.A.##, STAMMERJOHN S.E.##, LEFEBVRE W.##, HARANGOZO S.A., ADAMS N.##, SCAMBOS T.A.##, POOK M.J.## & FOWLER C.##** 2008. West Antarctic Peninsula sea ice in 2005: extreme ice compaction and ice edge retreat due to strong anomaly with respect to climate. *Journal of Geophysical Research*, **113**, No. C2, C02S20, doi:10.1029/2007JC004239, 23p.

**NICHOLLS K.W., ABRAHAMSEN E.P., HEYWOOD K.J.++, STANSFIELD K.++ & ØSTERHUS S.##** 2008. High-latitude oceanography using the Autosub autonomous underwater vehicle. *Limnology and Oceanography*, **53**, No. 5 Pt. 2, 2309-2320.

**NICHOLLS K.W., BOEHME L.++, BIUW M.++ & FEDAK M.A.++** 2008. Wintertime ocean conditions over the southern Weddell Sea continental shelf, Antarctica. *Geophysical Research Letters*, **35**, No. 21, L21605, doi:10.1029/2008GL035742, 5p.

**ORR A.++, MARSHALL G.J., HUNT J.C.R.++, SOMMERIA J.##, WANG C.G.++, van LIPZIG N.P.M.##, CRESSWELL D.++ & KING J.C.** 2008. Characteristics of summer airflow over the Antarctic Peninsula in response to recent

strengthening of westerly circumpolar winds. *Journal of the Atmospheric Sciences*, **65**, No. 4, 1396-1413.

OVERLAND J.E.##, TURNER J., FRANCIS J.##, GILLETT N.P.++, MARSHALL G.J., & TJERNSTRÖM M.## 2008. The Arctic and Antarctic: two faces of climate change. *Eos. Transactions, American Geophysical Union*, **89**, No. 19, 177-178.

PETERSON T.C.##, CONNOLLEY W.M. & FLECK J.## 2008. The myth of the 1970s global cooling scientific consensus. *Bulletin of the American Meteorological Society*, **89**, No. 9, 1325-1337.

PRICE M.R.++, HEYWOOD K.J.++ & NICHOLLS K.W. 2008. Ice-shelf - ocean interactions at Fimbul Ice Shelf, Antarctica from oxygen isotope ratio measurements. *Ocean Science*, **4**, No. 1, 89-98.

ROTACH M.W.##, ANDRETTA M.##, CALANCA P.##, WEIGEL A.P.## & WEISS A. 2008. Boundary layer characteristics and turbulent exchange mechanisms in highly complex terrain. *Acta Geophysica*, **56**, No. 1, 194-218.

THOMA M., JENKINS A., HOLLAND D.M.## & JACOBS S.S.## 2008. Modelling Circumpolar Deep Water intrusions on the Amundsen Sea continental shelf, Antarctica. *Geophysical Research Letters*, **35**, No. 18, L18602, doi:10.1029/2008GL034939, 6p.

THOMAS E.R., MARSHALL G.J. & McCONNELL J.R.## 2008. A doubling in snow accumulation in the western Antarctic Peninsula since 1850. *Geophysical Research Letters*, **35**, No. 1, L01706, doi:10.1029/2007GL032529, 5p.

van LIPZIG N.P.M.##, MARSHALL G.J., ORR A.++ & KING J.C. 2008. The relationship between the Southern Hemisphere Annular Mode and Antarctic Peninsula summer temperatures: analysis of a high-resolution model climatology. *Journal of Climate*, **21**, No. 8, 1649-1668.

WANG Z. & MEREDITH M.P. 2008. Density-driven Southern Hemisphere subpolar gyres in coupled climate models. *Geophysical Research Letters*, **35**, No. 14, L14608, doi:10.1029/2008GL034344, 5p.

WILCHINSKY A.V.++ & FELTHAM D.L. 2008. Generation of a buoyancy-driven coastal current by an Antarctic polynya. *Journal of Physical Oceanography*, **38**, No. 5, 1011-1032.

### Book chapters

KING J.C., POMEROY J.W.##, GRAY D.M.##, FIERZ C.##, FÖHN P.M.B.##, HARDING R.J.\*\*, JORDAN R.E.##, MARTIN E.## & PLÜSS C.## 2008. Snow-atmosphere energy and mass balance. (In Armstrong, R.L. & Brun, E., eds. *Snow and climate: physical processes, surface energy balance and modeling*. Cambridge, Cambridge University Press, 70-124.

## Unrefereed publications

**THOMAS E.R.**, BAESEMAN J.##, LANTUIT H.##, XAVIER J.C.## & BAKER N.++ 2008. Professional development training for early career polar researchers. *Eos. Transactions, American Geophysical Union*, **89**, No. 44, 434.

## SEC: Sun Earth Connections

### Refereed research papers 2008 listed in ISI database

BAUMGAERTNER A.J.G.##, McDONALD A.J.##, **HIBBINS R.E.**, FRITTS D.C.##, MURPHY D.J.## & VINCENT R.A.## 2008. Short-period planetary waves in the Antarctic middle atmosphere. *Journal of Atmospheric and Solar-Terrestrial Physics*, **70**, No. 10, 1336-1350.

BORTNIK J.##, THORNE R.M.## & **MEREDITH N.P.** 2008. The unexpected origin of plasmaspheric hiss from discrete chorus emissions. *Nature*, **452**, No. 7183, 62-66.

**CLILVERD M.A.**, RODGER C.J.##, BRUNDELL J.##, BÄHR J.##, **COBBETT N.**, **MOFFAT-GRIFFIN T.**, KAVANAGH A.J.++, SEPPÄLÄ A.##, THOMSON N.R.##, FRIEDEL R.H.W.## & MENK F.W.## 2008. Energetic electron precipitation during substorm injection events: high-latitude fluxes and an unexpected midlatitude signature. *Journal of Geophysical Research*, **113**, No. A10, A10311, doi:10.1029/2008JA013220, 12p.

**CLILVERD M.A.**, RODGER C.J.##, GAMBLE R.J.##, **MEREDITH N.P.**, PARROT M.##, BERTHELIER J.-J.## & THOMSON N.R.## 2008. Ground-based transmitter signals observed from space: ducted or nonducted? *Journal of Geophysical Research*, **113**, No. A4, A04211, doi:10.1029/2007JA012602, 12p.

EMMERT J.T.##, DROB D.P.##, SHEPHERD G.G.##, HERNANDEZ G.##, **JARVIS M.J.**, MERIWETHER J.W.##, NICIEJEWSKI R.J.##, SIPLER D.P.## & TEPLY C.A.## 2008. DWM07 global empirical model of upper thermospheric storm-induced disturbance winds. *Journal of Geophysical Research*, **113**, No. A11, A11319, doi:10.1029/2008JA013541, 16p.

FOK M.-C.##, **HORNE R.B.**, **MEREDITH N.P.** & **GLAUERT S.A.** 2008. Radiation Belt Environment model: application to space weather nowcasting. *Journal of Geophysical Research*, **113**, No. A3, A03S08, doi:10.1029/2007JA012558, 12p.

**FORD E.A.K.**, ARULIAH A.L.++, GRIFFIN E.M.++ & McWHIRTER I.++ 2008. Statistical analysis of thermospheric gravity waves from Fabry-Perot Interferometer measurements of atomic oxygen. *Annales Geophysicae*, **26**, No. 1, 29-45.

GAMBLE R.J.##, RODGER C.J.##, **CLILVERD M.A.**, SAUVAUD J.-A.##, THOMSON N.R.##, STEWART S.L.##, McCORMICK R.J.##, PARROT M.## &

BERTHELIER J.-J.## 2008. Radiation belt electron precipitation by man-made VLF transmissions. *Journal of Geophysical Research*, **113**, No. A10, A10211, doi:10.1029/2008JA013369, 13p.

**HIBBINS R.E. & JARVIS M.J.** 2008. A long-term comparison of wind and tide measurements in the upper mesosphere recorded with an imaging Doppler interferometer and SuperDARN radar at Halley, Antarctica. *Atmospheric Chemistry and Physics*, **8**, No. 5, 1367-1376.

**HORNE R.B.**, THORNE R.M.##, **GLAUERT S.A.**, MENIETTI J.D.##, SHPRITS Y.Y.## & GURNETT D.A.## 2008. Gyro-resonant electron acceleration at Jupiter. *Nature Physics*, **4**, No. 4, 301-304.

LAŠTOVIČKA J.##, AKMAEV R.A.##, BEIG G.##, BREMER J.##, EMMERT J.T.##, JACOBI C.##, **JARVIS M.J.**, NEDOLUHA G.##, PORTNYAGIN Y.I.## & ULICH T.## 2008. Emerging pattern of global change in the upper atmosphere and ionosphere. *Annales Geophysicae*, **26**, No. 5, 1255-1268

LI W.##, THORNE R.M.##, **MEREDITH N.P.**, **HORNE R.B.**, BORTNIK J.##, SHPRITS Y.Y.## & NI B.## 2008. Evaluation of whistler mode chorus amplification during an injection event observed on CRRES. *Journal of Geophysical Research*, **113**, No. A9, A09210, doi:10.1029/2008JA013129, 13p.

**LU H.**, BALDWIN M.P.##, GRAY L.J.++ & **JARVIS M.J.** 2008. Decadal-scale changes in the effect of the QBO on the northern stratospheric polar vortex. *Journal of Geophysical Research*, **113**, No. D10, D10114, doi:10.1029/2007JD009647, 14p.

**LU H.**, **CLILVERD M.A.**, **SEPPÄLÄ A.** & HOOD L.L.## 2008. Geomagnetic perturbations on stratospheric circulation in late winter and spring. *Journal of Geophysical Research*, **113**, No. D16, D16106, doi:10.1029/2007JD008915, 16p.

MENIETTI J.D.##, **HORNE R.B.**, GURNETT D.A.##, HOSPODARSKY G.B.##, PIKER C.W.## & GROENE J.B.## 2008. A survey of Galileo plasma wave instrument observations of Jovian whistler-mode chorus. *Annales Geophysicae*, **26**, No. 7, 1819-1828.

**MEREDITH N.P.**, **HORNE R.B.** & ANDERSON R.R.## 2008. Survey of magnetosonic waves and proton ring distributions in the Earth's inner magnetosphere. *Journal of Geophysical Research*, **113**, No. A6, A06213, doi:1029/2007JA012975, 13p.

MOFFAT-GRIFFIN T., HIBBINS R.E., NIELSEN K., JARVIS M.J. & TAYLOR M.J. 2008. Observing mesospheric gravity waves with an imaging riometer. *Journal of Atmospheric and Solar-Terrestrial Physics*, **70**, No. 10, 1327-1335.

RODGER C.J.## & **CLILVERD M.A.** 2008. Hiss from the chorus. *Nature*, **452**, No. 7183, 41-42.

RODGER C.J.##, RAITA T.##, **CLILVERD M.A.**, **SEPPÄLÄ A.**, DIETRICH S.##, THOMSON N.R.## & ULICH T.## 2008. Observations of relativistic electron

precipitation from the radiation belts driven by EMIC waves. *Geophysical Research Letters*, **35**, No. 16, L16106, doi:10.1029/2008GL034804, 5p.

RODGER C.J.##, SEPPÄLÄ A.## & CLILVERD M.A. 2008. Significance of transient luminous events to neutral chemistry: experimental measurements. *Geophysical Research Letters*, 35, No. 7, L07803, doi:10.1029/2008GL033221, 5p.

SEPPÄLÄ A., CLILVERD M.A., RODGER C.J.##, VERRONEN P.T.## & TURUNEN E.## 2008. The effects of hard-spectra solar proton events on the middle atmosphere. *Journal of Geophysical Research*, **113**, No. A11, A11311, doi:10.1029/2008JA013517, 11p.

SUMMERS D.##, NI B.##, MEREDITH N.P., HORNE R.B., THORNE R.M.##, MOLDWIN M.B.## & ANDERSON R.R.## 2008. Electron scattering by whistler-mode ELF hiss in plasmaspheric plumes. *Journal of Geophysical Research*, **113**, No. A4, A04219, doi:10.1029/2007JA012678, 17p.

WANG K.##, THORNE R.M.## & HORNE R.B. 2008. Origin of Jovian hiss in the extended Io torus. *Geophysical Research Letters*, **35**, No. 16, L16105, doi:10.1029/2008GL034636, 5p.

#### **Refereed research papers 2008 NOT listed in ISI database**

DENTON M.H.##, BOROVSKY J.E.##, HORNE R.B., McPHERRON R.L.##, MORLEY S.K.## & TSURUTANI B.T.## 2008. High-speed solar wind streams: a call for key research. *Eos. Transactions American Geophysical Union*, **89**, No. 7, 62.

#### **Book chapters**

LU H. & RICHARDS K.++ 2008. Sediment delivery: new approaches to modelling an old problem. (In Rice, S.P., Roy, A.G. & Rhoads, B.L., eds. *River confluences, tributaries and the fluvial network*. Chichester, Wiley, 337-366.)

#### COMPLEXITY: Natural Complexity Programme

#### **Refereed research papers 2008 listed in ISI database**

BOAKES P.D.++, MILAN S.E.++, ABEL G.A., FREEMAN M.P., CHISHAM G., HUBERT B.## & SOTIRELIS T.## 2008. On the use of IMAGE FUV for estimating the latitude of the open/closed magnetic field line boundary in the ionosphere. *Annales Geophysicae*, **26**, No. 9, 2759-2769.

CHISHAM G., FREEMAN M.P., ABEL G.A., LAM M.M., PINNOCK M., COLEMAN I.J., MILAN S.E.++, LESTER M.++, BRISTOW W.A.##, GREENWALD R.A.##, SOFKO G.J.## & VILLAIN J.-P.## 2008. Remote sensing of the spatial and temporal structure of magnetopause and magnetotail reconnection

from the ionosphere. *Reviews of Geophysics*, **46**, No. 1, RG1004, doi:10.1029/2007RG000223, 27p.

**CHISHAM G.**, YEOMAN T.K.++ & SOFKO G.J.## 2008. Mapping ionospheric backscatter measured by the SuperDARN HF radars - Part 1: A new empirical virtual height model. *Annales Geophysicae*, **26**, No. 4, 823-841.

**EDWARDS A.M.** 2008. Using likelihood to test for Lévy flight search patterns and for general power-law distributions in nature. *Journal of Animal Ecology*, **77**, No. 6, 1212-1222.

MAJDA A.J.##, **FRANZKE C.** & KHOUIDER B.## 2008. An applied mathematics perspective on stochastic modelling for climate. *Philosophical Transactions of the Royal Society of London, Series A*, **366**, No. 1875, 2429-2455.

**PETKAKI P. & FREEMAN M.P.** 2008. Nonlinear dependence of anomalous ion-acoustic resistivity on electron drift velocity. *Astrophysical Journal*, **686**, No. 1, 686-693.

**WATKINS N.W. & FREEMAN M.P.** 2008. Natural complexity. *Science*, **320**, No. 5874, 323-324.

YEOMAN T.K.++, **CHISHAM G.**, BADDELEY L.J.++, DHILLON R.S.++, KARHUNEN T.J.T.++, ROBINSON T.R.++, SENIOR A.++ & WRIGHT D.M.++ 2008. Mapping ionospheric backscatter measured by the SuperDARN HF radars - Part 2: Assessing SuperDARN virtual height models. *Annales Geophysicae*, **26**, No. 4, 843-852.

### **Unrefereed publications**

**ABEL G.A.**, BUNCE E.++, GRIFFIN E.++ & REES A.++ 2008. Autumn MIST. (Report of meeting held at the Geological Society London November 30th 2007). *Astronomy and Geophysics*, **49**, No. 1, 1.19-1.21.

### LTMS: Long-Term Monitoring and Survey

### **Refereed research papers 2008 listed in ISI database**

**BRIDGE P.D.**, HUGHES K.A. & DENTON J.O.%% 2008. Association of the coprophilous fungus *Pirella circinans* with an indigenous beetle on the sub-Antarctic Bird Island. *Polar Biology*, **31**, No. 6, 657-661.

**BRIDGE P.D.**, NEWSHAM K.K. & DENTON G.J.\$\$ 2008. Snow mould caused by a *Pythium* sp.: a potential vascular plant pathogen in the maritime Antarctic. *Plant Pathology*, **57**, No. 6, 1066-1072.

**CLARKE A., MEREDITH M.P., WALLACE M.I., BRANDON M.A.++ & THOMAS D.N.++** 2008. Seasonal and interannual variability in temperature, chlorophyll and macronutrients in Ryder Bay, northern Marguerite Bay, Antarctica. *Deep-Sea Research Part II*, **55**, No. 18-19, 1988-2006.

**DIEHL T.M.##, HOLT J.W.##, BLANKENSHIP D.D.##, YOUNG D.A.##, JORDAN T.A. & FERRACCIOLI F.** 2008. First airborne gravity results over the Thwaites Glacier catchment, West Antarctica. *Geochemistry, Geophysics, Geosystems*, **9**, No. 4, Q04011, doi:10.1029/2007GC001878 ,10p.

**FLOWERDEW M.J.** 2008. On the age and relation between metamorphic gneisses and the Trinity Peninsula Group, Bowman Coast, Graham Land, Antarctica. *Antarctic Science*, **20**, No. 5, 511-512.

**FOX A.J. & CZIFERSZKY A.** 2008. Unlocking the time capsule of historic aerial photography to measure changes in Antarctic Peninsula glaciers. *Photogrammetric Record*, **23**, No. 121, 51-68.

**HUGHES K.A., WALUDA C.M., STONE R.E., RIDOUT M.S.++ & SHEARS J.R.** 2008. Short-term response of king penguins *Aptenodytes patagonicus* to helicopter disturbance at South Georgia. *Polar Biology*, **31**, No. 12, 1521-1530.

**MEREDITH M.P., BRANDON M.A.++, WALLACE M.A., CLARKE A., LENG M.J.\*\***, RENFREW I.A.++, van LIPZIG N.P.M.## & **KING J.C.** 2008. Variability in the freshwater balance of Marguerite Bay, Antarctic Peninsula: results from  $\delta^{18}\text{O}$ . *Deep-Sea Research Part II*, **55**, No. 3-4, 309-322.

**PEARCE D.A.** 2008. Biodiversity of the bacterioplankton in the surface waters around Southern Thule in the Southern Ocean. *Antarctic Science*, **20**, No. 3, 291-300.

**RENARD J.-B.##, BERTHET G.##, BROGNIEZ C.##, CATOIRE V.##, FUSSEN D.##, GOUTAIL F.##, OELHAF H.##, POMMEREAU J.-P.##, ROSCOE H.K., WETZEL G.##, CHARTIER M.##, ROBERT C.##, BALOIS J.-Y.##, VERWAERDE C.##, AURIOL F.##, FRANCOIS P.##, GAUBICHER B.## & WURSTEISEN P.##** 2008. Validation of GOMOS-Envisat vertical profiles of O<sub>3</sub>, NO<sub>2</sub>, NO<sub>3</sub>, and aerosol extinction using balloon-borne instruments and analysis of the retrievals. *Journal of Geophysical Research*, **113**, No. A2, A02303, doi:10.1029/2007JA012345, 20p.

**VAUGHAN A.P.M. & PANKHURST R.J.\*\*** 2008. Tectonic overview of the West Gondwana margin. *Gondwana Research*, **13**, No. 2, 150-162.

**WENDT A.S., VAUGHAN A.P.M. & TATE A.J.** 2008. Metamorphic rocks in the Antarctic Peninsula region. *Geological Magazine*, **145**, No. 5, 655-676.

### **Unreferred publications**

**HUGHES K.A.** 2008. Review of *Antarctic bioprospecting* edited by A.D. Hemmings and M. Rogan-Finnemore. Christchurch, N.Z., Gateway Antarctica, 2005. *Antarctic Science*, **20**, No. 6, 607-608.

## Independent Projects

### **Refereed research papers 2008 listed in ISI database**

AMOS W.++ & CLARKE A. 2008. Body temperature predicts maximum microsatellite length in mammals. *Biology Letters*, **4**, No. 4, 399-401.

CLARKE A. 2008. Antarctic marine benthic diversity: patterns and processes. *Journal of Experimental Marine Biology and Ecology*, **366**, No. 1, 48-55.

CLARKE A. 2008. Ecological stoichiometry in six species of Antarctic marine benthos. *Marine Ecology Progress Series*, **369**, 25-37.

CLARKE A. & ROTHERY P. 2008. Scaling of body temperature in mammals and birds. *Functional Ecology*, **22**, No. 1, 58-67.

CLARKE A. & TYLER P.A.++ 2008. Adult Antarctic krill feeding at abyssal depths. *Current Biology*, **18**, No. 4, 282-285.

CLARKE A., BRIERLEY A.S.++, HARRIS C.M.%%, LUBIN D.## & SMITH R.C.## 2008. Polar and ice-edge marine systems. (In Polunin, N.V.C., ed. *Aquatic ecosystems: trends and global prospects*. Cambridge : Cambridge University Press, 319-333.)

MEREDITH M.P., NAVEIRA GARABATO A.C.\*\* , GORDON A.L.## & JOHNSON G.C.## 2008. Evolution of the deep and bottom waters of the Scotia Sea, Southern Ocean, during 1995-2005. *Journal of Climate*, **21**, No. 13, 3327-3343.

### **Unrefereed publications**

CLARKE A. 2008. Review of *Birds and mammals of the Falkland Islands* by R.W. Woods and A. Woods. Maidenhead WILDGuides 2006. *Ibis*, **150**, No. 1, 210.

## Antarctic Funding Initiative

### **Refereed research papers 2008 listed in ISI database**

ALLCOCK A.L.++, STRUGNELL J.M. & JOHNSON M.P.++ 2008. How useful are the recommended counts and indices in the systematics of the Octopodidae (Mollusca: Cephalopoda). *Biological Journal of the Linnean Society*, **95**, No. 1, 205-218.

DOWDESWELL J.A.++, Ó COFAIGH C.++, NOORMETS R.++, LARTER R.D., HILLENBRAND C.-D., BENETTI S., EVANS J.++ & PUDSEY C.J. 2008. A

major trough-mouth fan on the continental margin of the Bellingshausen Sea, West Antarctica: the Belgica Fan. *Marine Geology*, **252**, No. 3-4, 129-140.

HAWES T.C.++, BALE J.S.++, **WORLAND M.R. & CONVEY P.** 2008. Trade-offs between microhabitat selection and physiological plasticity in the Antarctic springtail, *Cryptopygus antarcticus* (Willem). *Polar Biology*, **31**, No. 6, 681-689.

HAWES T.C.++, **WORLAND M.R.** & BALE J.S.++ 2008. Physiological constraints on the life cycle and distribution of the Antarctic fairy shrimp *Branchinecta gaini*. *Polar Biology*, **31**, No. 12, 1531-1538.

**JONES A.E., WOLFF E.W., SALMON R.A., BAUGUITTE S.J., ROSCOE H.K., ANDERSON P.S., AMES D.++, CLEMITSHAW K.C.++, FLEMING Z.L.++, BLOSS W.J.++, HEARD D.E.++, LEE J.D.++, READ K.A.++, HAMER P.++, SHALLCROSS D.E.++, JACKSON A.V.++, WALKER S.L.++, LEWIS A.C.++, MILLS G.P.++, PLANE J.M.C.++, SAIZ-LOPEZ A.++, STURGES W.T.++ & WORTON D.R.++** 2008. Chemistry of the Antarctic boundary layer and the interface with snow: an overview of the CHABLIS campaign. *Atmospheric Chemistry and Physics*, **8**, No. 14, 3789-3803.

**MILES G.M., MARSHALL G.J., McCONNELL J.R.## & ARISTARAIN A.J.##** 2008. Recent accumulation variability and change on the Antarctic Peninsula from the ERA40 reanalysis. *International Journal of Climatology*, **28**, No. 11, 1409-1422.

PIKE J.++, **ALLEN C.S., LEVENTER A.##, STICKLEY C.E.## & PUDSEY C.J.** 2008. Comparison of contemporary and fossil diatom assemblages from the western Antarctic Peninsula shelf. *Marine Micropaleontology*, **67**, No. 3-4, 274-287.

READ K.A.++, LEWIS A.C.++, **BAUGUITTE S.J., RANKIN A.M., SALMON R.A., WOLFF E.W., SAIZ-LOPEZ A.##, BLOSS W.J.++, HEARD D.E.++, LEE J.D.++ & PLANE J.M.C.++** 2008. DMS and MSA measurements in the Antarctic boundary layer: impact of BrO on MSA production. *Atmospheric Chemistry and Physics*, **8**, No. 11, 2985-2997.

**SALMON R.A., BAUGUITTE S.J., BLOSS W.J.++, HUTTERLI M.A., JONES A.E., READ K.A.++ & WOLFF E.W.** 2008. Measurement and interpretation of gas phase formaldehyde concentrations obtained during the CHABLIS campaign in coastal Antarctica. *Atmospheric Chemistry and Physics*, **8**, No. 14, 4085-4093.

**STRUGNELL J.M., COLLINS M.A. & ALLCOCK A.L.++** 2008. Molecular evolutionary relationships of the octopodid genus *Thaumeledone* (Cephalopoda: Octopodidae) from the Southern Ocean. *Antarctic Science*, **20**, No. 3, 245-251.

**STRUGNELL J.M., ROGERS A.D.%%, PRODÖHL P.A.++, COLLINS M.A. & ALLCOCK A.L.++** 2008. The thermohaline expressway: the Southern Ocean as a centre of origin for deep-sea octopuses. *Cladistics*, **24**, No. 6, 853-860.

**UPSON R., NEWSHAM K.K. & READ D.J.++** 2008. Root-fungal associations of *Colobanthus quitensis* and *Deschampsia antarctica* in the Maritime and Subantarctic. *Arctic, Antarctic and Alpine Research*, **40**, No. 3, 592-599

WALLACE M.I.++, **MEREDITH M.P.**, BRANDON M.A.++, SHERWIN T.J.\*\*,  
DALE A.\*\* & **CLARKE A.** 2008. On the characteristics of internal tides and  
coastal upwelling behaviour in Marguerite Bay west Antarctic Peninsula. *Deep-Sea  
Research Part II*, **55**, No. 18-19, 2023-2040.

### **Book chapters**

FRANCIS J.E.++, ASHWORTH A.C.##, CANTRILL D.J.##, **CRAME J.A.**, HOWE  
J.++, STEPHENS R.S.++, TOSOLINI A.-M.++ & THORN V.++ 2008. 100 million  
years of Antarctic climate evolution: evidence from fossil plants. (In Cooper, A.K.,  
Barrett, P.J., Stagg, H.M.J., Storey, B.C., Stump E., Wise, W. & 10th ISAES Editorial  
Team, eds. *Antarctica: a keystone in a changing world. Proceedings of the 10th  
International Symposium on Antarctic Earth Sciences, Santa Barbara, California,  
August 26 - September 1, 2007*. Washington, D.C., National Academies Press, 19-  
28.)

### South Georgia

#### **Refereed research papers 2008 listed in ISI database**

**BELCHIER M. & COLLINS M.A.** 2008. Recruitment and body size in relation to  
temperature in juvenile Patagonian toothfish (*Dissostichus eleginoides*) at South  
Georgia. *Marine Biology*, **155**, No. 5, 493-503.

### Other Special Projects

#### **Refereed research papers 2008 listed in ISI database**

BOEHME L.++, **MEREDITH M.P.**, **THORPE S.E.**, BIUW M.++ & FEDAK  
M.A.++ 2008. Antarctic Circumpolar Current frontal system in the South Atlantic:  
monitoring using merged Argo and animal-borne sensor data. *Journal of Geophysical  
Research*, **113**, No. C9, C09012, doi:10.1029/2007JC004647, 19p.

BORMAN A.M.%%, PETCH R.++, LINTON C.J.%%, PALMER M.D.%%,  
**BRIDGE P.D.** & JOHNSON E.M.%% 2008. *Candida nivariensis*, an emerging  
pathogenic fungus with multidrug resistance to antifungal agents. *Journal of Clinical  
Microbiology*, **46**, No. 3, 933-938.

**BRIDGE P.D.**, SPOONER B.M.%%, BEEVER R.E.%% & PARK D.-C.## 2008.  
Taxonomy of the fungus commonly known as *Stropharia aurantiaca*, with new  
combinations in *Leratiomyces*. *Mycotaxon*, **103**, 109-121.

**BRIDGE P.D.**, WALLER J.M.%%, DAVIES D.%% & BUDDIE A.G.%% 2008.  
Variability of *Colletotrichum kahawae* in relation to other *Colletotrichum* species  
from tropical perennial crops and the development of diagnostic techniques. *Journal  
of Phytopathology*, **156**, No. 5, 274-280.

**BUITENHUIS E.T., PANGERC T., FRANKLIN D.J.++, LE QUÉRÉ C. & MALIN G.++** 2008. Growth rates of six coccolithophorid strains as a function of temperature. *Limnology and Oceanography*, **53**, No. 3, 1181-1185.

**BUNBURY J.M.++, GRAHAM A.++ & HUNTER M.A.** 2008. Stratigraphic landscape analysis: charting the Holocene movements of the Nile at Karnak through ancient Egyptian time. *Geoarchaeology: an International Journal*, **23**, No. 3, 351-373.

**CHARRASSIN J.-B.##, HINDELL M.A.##, RINTOUL S.R.##, ROQUET F.##, SOKOLOV S.##, BIUW M.++, COSTA D.P.##, BOEHME L.++, LOVELL P.++, COLEMAN R.##, TIMMERMANN R.##, MEIJERS A.##, MEREDITH M.P., PARK Y.-H.##, BAILLEUL F.##, GOEBEL M.E.##, TREMBLAY Y.##, BOST C.A.##, McMAHON C.R.##, FIELD I.C.##, FEDAK M.A.++ & GUINET C.##** 2008. Southern Ocean frontal structure and sea-ice formation rates revealed by elephant seals. *Proceedings of the National Academy of Sciences*, **105**, No. 33, 11634-11639.

**CHEW D.M.##, FLOWERDEW M.J., PAGE L.M.##, CROWLEY Q.G.\*\* , DALY J.S.##, COOPER M.%% & WHITEHOUSE M.J.##** 2008. The tectonothermal evolution and provenance of the Tyrone Central Inlier, Ireland: Grampian imbrication of an outboard Laurentian microcontinent? *Journal of the Geological Society*, **165**, Pt. 3, 675-685.

**FRANCIS G., BISHOP L., LUKE C.++, MIDDLETON B.++, WILLIAMS P.++ & ARENDT J.++** 2008. Sleep during the Antarctic winter: preliminary observations on changing the spectral composition of artificial light. *Journal of Sleep Research*, **17**, No. 3, 354-360.

**FRETWELL P.T., SMITH D.E.++ & HARRISON S.++** 2008. Last Glacial Maximum British-Irish Ice Sheet: a reconstruction using digital terrain mapping. *Journal of Quaternary Science*, **23**, No. 3, 241-248.

**GIRAUD X.##, LE QUÉRÉ C. & da CUNHA L.C.##** 2008. Importance of coastal nutrient supply for global ocean biogeochemistry. *Global Biogeochemical Cycles*, **22**, No. 2, GB2025, doi:10.1029/GB002717, 15p.

**GUGLIELMIN M.##, ELLIS-EVANS J.C. & CANNONE N.##** 2008. Active layer thermal regime under different vegetation conditions in permafrost areas. A case study at Signy Island (Maritime Antarctic). *Geoderma*, **144**, No. 1, 73-85.

**HILÁRIO A.++, TYLER P.A.++ & POND D.W.** 2008. A new method to determine the reproductive condition in female tubeworms tested in *Seepiophila jonesi* (Polychaeta: Siboglinidae: Vestimentifera). *Journal of the Marine Biological Association of the United Kingdom*, **88**, No. 5, 909-912.

**KOLSTAD E.W.## & BRACEGIRDLE T.J.** 2008. Marine cold-air outbreaks in the future: an assessment of IPCC AR4 model results for the Northern Hemisphere. *Climate Dynamics*, **30**, No. 7-8, 871-885.

MANIZZA M.##, LE QUÉRÉ C., WATSON A.J.++ & BUITENHUIS E.T.++ 2008. Ocean biogeochemical response to phytoplankton-light feedback in a global model. *Journal of Geophysical Research*, **113**, No. C10, C10010, doi:10.1029/2007JC004478, 13p.

THOMPSON R.L.##, GLOOR M.++, MANNING A.C.++, LOWE D.C.##, RÖDENBECK C.## & LE QUÉRÉ C. 2008. Variability in atmospheric O<sub>2</sub> and CO<sub>2</sub> concentrations in the southern Pacific Ocean and their comparison with model estimates. *Journal of Geophysical Research*, **113**, No. G2, G02025, doi:10.1029/2007JG000554, 13p.

### **Book chapters**

HOLFORT J.##, HANSEN E.##, ØSTERHUS S.##, DYE S.%%, JONSSON S.##, MEINCKE J.##, MORTENSEN J.## & MEREDITH M.P. 2008. Freshwater fluxes east of Greenland. (In Dickson, R.R., Meincke, J. & Rhines, P., eds. *Arctic-Subarctic ocean fluxes: defining the role of the northern seas in climate*. Dordrecht, Springer, 263-287.)

### Well-Found Laboratory

### **Refereed research papers 2007 listed in ISI database**

### **Unrefereed publications**

FLEMING A.H. & BOWYER P. 2008. Sat nav. *Planet Earth*, Spring 2008, 30-31.

WALTON D.W.H. 2008. Minimizing our scientific footprints. (Editorial). *Antarctic Science*, **20**, No. 5, 423.

WALTON D.W.H. 2008. Review of *Antarctic Peninsula and Tierra del Fuego: 100 years of Swedish-Argentine scientific cooperation at the end of the world* edited by J. Rabassa and M.L. Borla. Taylor and Francis, 2006. *Antarctic Science*, **20**, No. 3, 309-310.

WALTON D.W.H. 2008. Review of *The dictionary of Falklands biography (including South Georgia) from discovery up to 1981*. Edited by D. Tatham. Ledbury, David Tatham, 2008. *Falkland Islands Journal*, 2008, 147-149.

WALTON D.W.H. 2008. Review of *The ferocious summer: Palmer's penguins and the warming of Antarctica* by M. Hooper. London, Profile Books, 2007. *Polar Record*, **44**, No. 231, 379-380.

WALTON, D.W.H. 2008. Review of *Trends in Antarctic terrestrial and limnetic ecosystems: Antarctica as a global indicator*. Edited by D.M. Bergstrom, P. Convey and A.H.L. Huiskes. Dordrecht, Springer, 2006. *Antarctic Science*, **20**, No. 6, 611-612.

**WALTON D.W.H.** 2008. UNCLOS versus the Antarctic Treaty. *Antarctic Science*, **20**, No. 4, 311.

BAS Corporate

**Refereed research papers 2008 listed in ISI database**

**ELLIS-EVANS J.C. & WALTER N.##** 2008. Coordination Action for Research Activities on life in Extreme Environments - the CAREX project. *Journal of Biological Research-Thessaloniki*, **9**, 11-15.

**Unrefereed publications**

**BRITISH ANTARCTIC SURVEY** 2008. *Antarctic Treaty*. Cambridge, British Antarctic Survey, [10p].