

ANTARCTIC science

Volume 22 Number 6 2010

CONTENTS

Guest Editorial	589	Molecular support for Pleistocene persistence of the continental Antarctic moss <i>Bryum argenteum</i>	
The environmental basis of ecosystem variability in Antarctica: research in the Latitudinal Gradient Project		SIMON F.K. HILLS, MARK I. STEVENS & CHRISSEN E.C. GEMMILL	721
CLIVE HOWARD-WILLIAMS, IAN HAWES & SHULAMIT GORDON	591	Diversity of <i>Lecidea</i> (Lecideaceae, Ascomycota) species revealed by molecular data and morphological characters	
Cosmogenic nuclide exposure age constraints on the glacial history of the Lake Wellman area, Darwin Mountains, Antarctica		ULRIKE RUPRECHT, H. THORSTEN LUMBSCH, GEORG BRUNAUER, T.G. ALLAN GREEN & ROMAN TÜRK	727
B.C. STOREY, D. FINK, D. HOOD, K. JOY, J. SHULMEISTER, M. RIGER-KUSK & M.I. STEVENS	603	Identifying appropriate sampling and modelling approaches for analysing distributional patterns of Antarctic terrestrial arthropods along the Victoria Land latitudinal gradient	
Summertime boundary layer winds over the Darwin–Hatherton glacial system, Antarctica: observed features and numerical analysis		TANCREDI CARUSO, IAN D. HOGG & ROBERTO BARGAGLI	742
PEYMAN ZAWAR-REZA, STEVE GEORGE, BRYAN STOREY & WENDY LAWSON	619	Latitudinal distribution and mitochondrial DNA (COI) variability of <i>Stereotydeus</i> spp. (Acari: Prostigmata) in Victoria Land and the central Transantarctic Mountains	
Characterization of active layer water contents in the McMurdo Sound region, Antarctica		NICHOLAS J. DEMETRAS, IAN D. HOGG, JONATHAN C. BANKS & BYRON J. ADAMS	749
C.A. SEYBOLD, M.R. BALKS & D.S. HARMS	633	Population structure of <i>Friesea grisea</i> (Collembola, Neanuridae) in the Antarctic Peninsula and Victoria Land: evidence for local genetic differentiation of pre-Pleistocene origin	
The biogeochemistry of meltwater habitats in the Darwin Glacier region (80°S), Victoria Land, Antarctica		GIULIA TORRICELLI, FRANCESCO FRATI, PETER CONVEY, MARCO TELFORD & ANTONIO CARAPPELLI	757
J. WEBSTER-BROWN, M. GALL, J. GIBSON, S. WOOD & I. HAWES	646	Haplotype diversity in the Antarctic springtail <i>Gressittacantha terranova</i> at fine spatial scales - a Holocene twist to a Pliocene tale	
Spatial variations in the geochemistry of glacial meltwater streams in the Taylor Valley, Antarctica		T.C. HAWES, G. TORRICELLI & M.I. STEVENS	766
KATHLEEN A. WELCH, W. BERRY LYONS, CARLA WHISNER, CHRISTOPHER B. GARDNER, MICHAEL N. GOOSEFF, DIANE M. MCKNIGHT & JOHN C. PRISCU	662	South Georgia: a key location for linking physiological capacity to distributional changes in response to climate change	
Resolving environmental drivers of microbial community structure in Antarctic soils		S.A. MORLEY, H.J. GRIFFITHS, D.K.A. BARNES & L.S. PECK	774
JULIE L. SMITH, JOHN E. BARRETT, GÁBOR TUSNÁDY, LÍDIA REJTŐ & S. CRAIG CARY	673	Latitudinal variation of demersal fish assemblages in the western Ross Sea	
Fourteen degrees of latitude and a continent apart: comparison of lichen activity over two years at continental and maritime Antarctic sites		MALCOLM R. CLARK, MATTHEW R. DUNN, PETER J. McMILLAN, MATTHEW H. PINKERTON, ANDREW STEWART & STUART M. HANCHET	782
BURKHARD SCHROETER, T.G. ALLAN GREEN, STEFAN PANNEWITZ, MARK SCHLENSOG & LEOPOLDO G. SANCHO	681	Macrobenthic communities of the north-western Ross Sea shelf: links to depth, sediment characteristics and latitude	
Lichen and moss communities of Botany Bay, Granite Harbour, Ross Sea, Antarctica		V.J. CUMMINGS, S.F. THRUSH, M. CHIANTORE, J.E. HEWITT & R. CATTANEO-VIETTI	793
RODNEY D. SEPPELT, ROMAN TÜRK, T.G. ALLAN GREEN, GERALD MOSER, STEFAN PANNEWITZ, LEO G. SANCHO & BURKHARD SCHROETER	691	Cytogenetic diversity in the Antarctic plunderfishes (Notothenioidei: Artedidraconidae)	
Relationships between periglacial features and vegetation development in Victoria Land, continental Antarctica		LAURA GHIGLIOTTI, THOMAS J. NEAR, SARA FERRANDO, MARINO VACCHI & EVA PISANO	805
N. CANNONE & M. GUGLIELMIN	703	Book Reviews	815
Diverse hypolithic refuge communities in the McMurdo Dry Valleys			
DON A. COWAN, NURAAAN KHAN, STEPHEN B. POINTING & S. CRAIG CARY	714		

Antarctic Science is abstracted in *Current Contents*, *SciSearch*, *Research Alert*, *Geo Abstracts*, *Current Awareness in Biological Sciences*, *Mineralogical Abstracts*, *Meteorological & Geo-astronomical Abstracts*, *Current Antarctic Literature*, *GeoArchive*, *GeoRef*, *Biosis*, *Oceanographic Literature*, *Environmental Periodicals Bibliography* and *Polar & Glaciological Abstracts*

Cambridge Journals Online

For further information about this journal please go to the journal website at:
journals.cambridge.org/ans



Mixed Sources

Product group from well-managed forests and other controlled sources
www.fsc.org Cert no. SA-COC-1527
© 1996 Forest Stewardship Council

CAMBRIDGE
UNIVERSITY PRESS

continued from inside frontcover

Copying. This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA. Organizations in the USA who are also registered with CCC may therefore copy material (beyond the limits permitted by sections 107 and 108 of US copyright law) subject to payment to CCC of the per copy fee of \$16.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0954-1020/2010 \$16.00. ISI Tear Sheet Service, 3501 Market Street, Philadelphia, PA 19104, USA, is authorized to supply single copies of separate articles for private use only.

Organizations authorized by the Copyright Licensing Agency may also copy material subject to the usual conditions.

For all other use, permission should be sought from Cambridge University Press.

This journal issue has been printed on FSC-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see www.fsc.org for information.

Printed in the UK by Cambridge University Press.