

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 0954-1020/2012 \$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.

ANTARCTIC science

Volume 24 Number 2 2012

CONTENTS

Guest Editorial	113	Microbial biomass and community structure changes along a soil development chronosequence near Lake Wellman, southern Victoria Land JACKIE AISLABIE, JAMES BOCKHEIM, MALCOLM MCLEOD, DAVID HUNTER, BRYAN STEVENSON & GARY M. BARKER	154
BIOLOGICAL SCIENCES			
First data on age and sexual maturity of the Tristan klipfish, <i>Bovichtus diacanthus</i> (Bovichtidae) from Tristan da Cunha, South Atlantic MARIO LA MESA & JOSEPH T. EASTMAN	115	Heat tolerance of the secondarily temperate Antarctic notothenioid, <i>Notothenia angustata</i> KEVIN T. BILYK & ARTHUR L. DEVRIES	165
Summer–winter transitions in Antarctic ponds: III. Chemical changes JENNY WEBSTER-BROWN, IAN HAWES, KARL SAFI, BRIAN SORRELL & NATHANIEL WILSON	121	The fracture system and the melt emplacement beneath the Deception Island active volcano, South Shetland Islands, Antarctica ANTONIO PEDRERA, ANA RUIZ-CONSTÁN, NEMESIO HEREDIA, JESÚS GALINDO-ZALDÍVAR, FERNANDO BOHOYO, CARLOS MARÍN-LECHADO, PATRICIA RUANO & LUIS SOMOZA	173
High zooplankton diversity in the extreme environments of the McMurdo Dry Valley lakes, Antarctica LARS-ANDERS HANSSON, SAMUEL HYLANDER, HERBERT J.G. DARTNALL, SVEN LIDSTRÖM & JAN-ERIK SVENSSON	131	PHYSICAL SCIENCES	
Molecular characterization of ancient algal mats from the McMurdo Dry Valleys, Antarctica DOUG E. ANTIBUS, LAURA G. LEFF, BRENDA L. HALL, JENNY L. BAESEMAN & CHRISTOPHER B. BLACKWOOD	139	Evaluation of Antarctic Mesoscale Prediction System (AMPS) cyclone forecasts using infrared satellite imagery MELISSA A. NIGRO, JOHN J. CASSANO & SHELLEY L. KNUTH	183
Ultraviolet radiation tolerance of the Antarctic springtail, <i>Gomphiocephalus hodgsoni</i> T.C. HAWES, C.J. MARSHALL & D.A. WHARTON	147	Study of tides and sea levels at Deception and Livingston islands, Antarctica JUAN VIDAL, MANUEL BERROCOSE & ALBERTO FERNÁNDEZ-ROS	193
		Raman analysis of blue ice tephra: an approach to tephrochronological dating of ice cores ROBERT E. BARLETTA	202

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



www.fsc.org

MIX
Paper from
responsible sources
FSC® C018127

CAMBRIDGE
UNIVERSITY PRESS