## 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, notfor-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 Bell & Bain



Volume 25

Number 5

2013

## CONTENTS

Guest Editorial SYNTHESIS Ecosystem services of the Southern Ocean: trade-offs in decision-making SUSIE M. GRANT, SIMEON L. HILL, PHILIP N. TRATHAN & EUGENE J. MURPHY	601	Physicochemical and biological dynamics in a coastal Antarctic lake as it transitions from frozen to open water Markus Dieser, Christine M. Foreman, Christopher Jaros, John T. Lisle, Mark Greenwood, Johanna Laybourn-Parry, Penney L. Miller, Yu-Ping Chin & Diane M. McKnight	663
BIOLOGICAL SCIENCES Diversity, relative abundance, new locality records, and updated fish fauna of the Ross Sea region STUART M. HANCHET, ANDREW L. STEWART,		Rapid change in shallow water fish species composition in an historically stable Antarctic environment BRADLEY A. BUCKLEY EARTH SCIENCES	676
PETER J. MCMILLAN, MALCOLM R. CLARK, RICHARD L. O'DRISCOLL & MICHAEL L. STEVENSON A microbiologically clean strategy for access to the Whillans Ice Stream subglacial environment JOHN C. PRISCU, AMANDA M. ACHBERGER, JOEL E. CAHOON, BRENT C. CHRISTNER,	619	Provenance of basement erratics in Quaternary coastal moraines, southern McMurdo Sound, and implications for the source of Eocene sedimentary rocks F.M. TALARICO, D. PACE & R.H. LEVY	681
ROBERT L. EDWARDS, WARREN L. JONES, ALEXANDER B. MICHAUD, MATTHEW R. SIEGFRIED, MARK L. SKIDMORE, ROBERT H. SPIGEL, GREGG W. SWITZER, SLAWEK TULACZYK & TRISTA J. VICK-MAJORS Insights into the biology and phylogeny of	637	PHYSICAL SCIENCES Parameterization of clear sky effective emissivity under surface-based temperature inversion at Dome C and South Pole, Antarctica MAURIZIO BUSETTO, CHRISTIAN LANCONELLI,	
Chloromonas polyptera (Chlorophyta), an alga causing orange snow in Maritime Antarctica DANIEL REMIAS, HANS WASTIAN, CORNELIUS LÜTZ & THOMAS LEYA Description of a robust interception trap for collecting airborne arthropods in climatically challenging regions	648	MAURO MAZZOLA, ANGELO LUPI, BOYAN PETKOV, VITO VITALE, CLAUDIO TOMASI, PAOLO GRIGIONI & ANDREA PELLEGRINI One-year records from automatic snow stations in western Dronning Maud Land, Antarctica ONNI JÄRVINEN, MATTI LEPPÄRANTA & JUHO VEHVILÄINEN	697
ROGER FARROW & PENELOPE GREENSLADE	657	& JUHO VEHVILAINEN	711

Antarctic Science is abstracted in Current Contents, SciSearch, Research Alert, Geo Abstracts, Current Awareness in Biological Sciences, Mineralogical Abstracts, Meteorological & Geo-astrophysical 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



MIX Paper from responsible sources FSC<sup>®</sup> C007785

