

Advances in Polar Science

CONTENTS (Volume 30, 2019)

Number 1

Editorial

The Asian Forum for Polar Sciences: An assessment of regional cooperation

Andrea COLOMBO

Interplanetary shock-associated aurora

LIU Jianjun, HU Hongqiao, HAN Desheng & YANG Huigen

A characteristic study of humic acids isolated from Arctic fjord sediments

Jennees MATHEW, Aswathy SHAJI, Anu GOPINATH, Kottekkattu Padinchati KRISHNAN,
Sanil Vadakkan LOUIS & Anoop Pullarkkat PRADEEP

Role of lithology, weathering and precipitation on water chemistry of lakes from Larsemann Hills and Schirmacher Oasis of East Antarctica

Rajesh ASTHANA, Prakash K SHRIVASTAVA, Hari B SRIVASTAVA, Ashit K SWAIN, Mirza Javed BEG & Amit DHARWADKAR

Constraints on early Paleozoic magmatic processes and tectonic setting of Inexpressible Island, Northern Victoria Land, Antarctica

CHEN Hong, WANG Wei & ZHAO Yue

Characterizing three-dimensional features of Antarctic subglacial lakes from the inversion of hydraulic potential—Lake Vostok as a case study

LI Yan, LU Yang, ZHANG Zizhan, SHI Hongling & XI Hui

Terahertz atmospheric windows for high angular resolution terahertz astronomy from Dome A

Hiroshi MATSUO, Shengcai SHI, Scott PAINE, Qijun YAO & Zhenhui LIN

Number 2

Interaction of diabatic processes, large-scale eddies and the mean atmospheric circulation over the Atlantic, Arctic and Eurasia

Ralf JAISER, Dörthe HANDORF & Klaus DETHLOFF

Surface energy balance on the Antarctic plateau as measured with an automatic weather station during 2014

DING Minghu, Anubha AGRAWAL, Petra HEIL & YANG Diyi

An open-source albedo-wand for the measurement of sea ice albedo

Christian KATLEIN

Modified Rammsonde tests in layered compacted snow

ZHUANG Feng, LU Peng, LI Zhijun, HAN Hongwei & LI Wei

Investigation of PMSE echoes characteristics using the discontinuous EISCAT UHF observation and its relation with space environment

Abdur RAUF, LI Hailong, Safi ULLAH, WANG Maoyan & MENG Lin

Effects of vegetation on the structure and diversity of soil bacterial communities in the Arctic tundra

MA Yue, WANG Nengfei, WANG Shuang, HAN Wenbing, LIU Jie, YU Yong, GUO Li & YANG Guanpin

Early Cenozoic diorite and diabase from Doumer Island, Antarctic Peninsula: zircon U-Pb geochronology, petrogenesis and tectonic implications

CUI Jiawei, HU Jianmin, PEI Junling, CHEN Hong, DU Xingxing & WEI Lijie

Number 3

Foreword

Mesozoic and Cenozoic microbiotas from the eastern Antarctic Peninsula: adaptation to a changing palaeoenvironment

Cecilia R. AMENÁBAR, Andrea CARAMÉS, Susana ADAMONIS, Ana DOLDAN, Gabriel MACEIRAS & Andrea CONCHEYRO

Paleobiological significance of the James Ross Basin

J. Alistair CRAME

The fossil record of durophagous predation in the James Ross Basin over the last 125 million years

Elizabeth M. HARPER, J. Alistair CRAME & Alice M PULLEN

Cretaceous Antarctic plesiosaurs: stratigraphy, systematics and paleobiogeography

José Patricio O'GORMAN, Rodrigo OTERO, Marcelo REGUERO & Zulma GASPARINI

Late Cretaceous non-avian dinosaurs from the James Ross Basin, Antarctica: description of new material, updated synthesis, biostratigraphy, and paleobiogeography

Matthew C. LAMANNA, Judd A. CASE, Eric M. ROBERTS, Victoria M. ARBOUR, Ricardo C. ELY, Steven W. SALISBURY, Julia A. CLARKE, D. Edward MALINZAK, Abagael R. WEST & Patrick M. O'CONNOR

The fossil record of birds from the James Ross Basin, West Antarctica

Carolina ACOSTA HOSPITALECHE, Piotr JADWISZCZAK, Julia A. CLARKE & Marcos CENIZO

The fossil record of Antarctic land mammals: commented review and hypotheses for future research

Javier N. GELFO, Francisco J. GOIN, Nicolás BAUZÁ & Marcelo REGUERO

Eocene Antarctica: a window into the earliest history of modern whales

Mónica R. BUONO, R. Ewan FORDYCE, Felix G. MARX, Marta S. FERNÁNDEZ &

Marcelo A. REGUERO

Late Maastrichtian–Paleocene chronostratigraphy from Seymour Island, James Ross Basin, Antarctic Peninsula: Eustatic controls on sedimentation

Manuel MONTES, Elisabet BEAMUD, Francisco NOZAL & Sergio SANTILLANA

Antarctic Paleontological Heritage: Late Cretaceous–Paleogene vertebrates from Seymour (Marambio) Island, Antarctic Peninsula

Marcelo A. REGUERO

Inviting contributions to Special Issue in 2020

Number 4

T-MOSAIc—A new circumpolar collaboration

Diogo FOLHAS, João CANÁRIO & Warwick F. VINCENT

The importance of long-term research and monitoring in the Ross Sea

Bob ZUUR

Newly established autonomous adaptive low-power instrument platform (AAL-PIP) chain on East Antarctic Plateau and operation

Zhonghua XU, Michael D. HARTINGER, Robert CLAUER, Daniel WEIMER, Kshitija DESHPANDE, Hyomin KIM, Stephen MUSKO, Anna WILLER, Thomas EDWARDS, Shane COYLE, Yuxiang PENG, Dong LIN & John BOWMAN

Very low biodiversity of top predators—seabirds and marine mammals—in the high Arctic Ocean

Claude R. JOIRIS

Methane increase over the Barents and Kara seas after the autumn pycnocline breakdown: satellite observations

Leonid YURGANOV, Frank MULLER-KARGER & Ira LEIFER

On the determination and simulation of seawater freezing point temperature under high pressure

YAN Liangjun, WANG Zhaomin, LIU Chengyan & WU Yang

Estimation of ice resistance and sensitivity analysis for an icebreaker

FAN Tao, YU Chenfang & JIANG Yongxu

Anomalous extensive landfast sea ice in the vicinity of Inexpressible Island, Antarctica

ZHAI Mengxi, ZHAO Tiancheng, HUI Fengming, CHENG Xiao, LIU Aobo, YUAN Jiawei, YU Yining & DING Yifan

Contents of Volume 30, 2019