

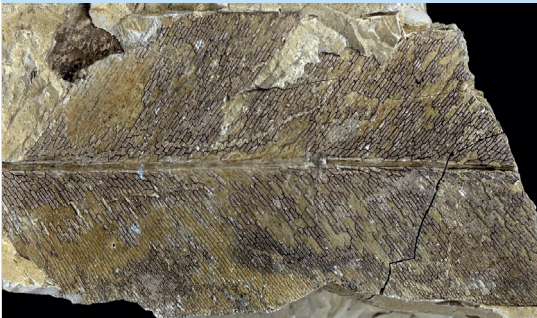
Earth and Environmental Science

Transactions of the Royal Society of Edinburgh

volume 104 parts 3 & 4
2014 (for 2013)

Special Issue

The Fauna and Flora of the Insect Limestone (late Eocene), Isle of Wight, UK Volume I



Published by The RSE Scotland Foundation, 22–26 George Street, Edinburgh EH2 2PQ



The Royal Society of Edinburgh is committed to the widespread dissemination of scientific knowledge and has published the *Transactions of the Royal Society of Edinburgh* since 1785, when James Hutton's 'Theory of the Earth' was published in volume 1. The journal evolved to the *Transactions of the Royal Society of Edinburgh: Earth Sciences* in 1980 and is now (as from 2007) the *Earth and Environmental Science Transactions of the Royal Society of Edinburgh*. Through this journal, the Society continues to encourage and support the international Earth and Environmental Science communities by:

- publishing a journal of international standing and authorship;
- publishing substantial papers on all scientific aspects of the **Earth and its surface environments**;
- publishing without page or colour charges;
- reproducing photographs and artwork to the highest standard, where appropriate at a size larger than is customary; and
- aiming to have papers reviewed within three months by at least two referees of international standing; and usually publishing within six months of acceptance.

The Editorial Board welcomes original manuscripts in the Earth and Environmental Sciences. It also welcomes proposals for Special Issues in these areas.

Editorial Board (as at May 2014)

Donald DAVIDSON
(Chairman & Editor-in-Chief)
University of Stirling

Mike BENTON
University of Bristol

Rob BINGHAM
University of Edinburgh

Paul BISHOP
University of Glasgow

Doug FETTES
British Geological Survey
Edinburgh

Adrian FINCH
University of St Andrews

Andrew ROSS
National Museums Scotland
Edinburgh

Susan WALDRON
University of Glasgow

Alan WERRITTY
University of Dundee

Consulting Editors

P. AHLBERG
Lund University
Sweden

P. A. ALLEN
Imperial College
London, UK

M. ARIMA
Yokohama National University
Japan

S. BANNO
Kyoto University
Japan

R. L. CARROLL
McGill University
Montreal, Canada

I. W. D. DALZIEL
University of Texas at Austin
USA

J. F. DEWEY
University College, Oxford
UK

P. DONOGHUE
University of Bristol
UK

J. DOWDESWELL
Scott Polar Research Institute
University of Cambridge, UK

J. C. KNOX
University of Wisconsin
Madison, USA

D. WALOSZEK
Universität Ulm
Germany

C. T. WILLIAMS
The Natural History Museum
London, UK

Journals & Archive Officer: Royal Society of Edinburgh: Mrs Vicki M. Hammond

COPYRIGHT: It is the policy of the Royal Society of Edinburgh not to charge any royalty for the production of a single copy of any one article made for private study or research. Specific permission will not be required for photocopying multiple copies of copyright material, to be used for *bona fide* educational purposes, provided this is done by a member of the staff of the university, school or other comparable institution, for distribution without profit to student members of that institution, and provided the copies are made from the original journal. Requests for the copying or reprinting of any article for any other purpose should be sent to the Journals & Archive Officer at the Royal Society of Edinburgh. (publications@royalsoced.org.uk).

Earth and Environmental Science Transactions of the Royal Society of Edinburgh publishes one volume per year, usually in three or four parts. Volume 104 (2014) will be published in three parts – two single issues and one double issue.

An annual subscription costs GBP281/ USD530 (Print plus Online) or GBP256/ USD475 (Online only). Orders should be placed with Customer Services, Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU UK

Telephone: +44 (0)1223 326070; Fax: +44 (0)1223 325150; email: journals@cambridge.org

EESTRSE is indexed/abstracted in the following: Current Contents/Physical, Chemical & Earth Sciences; Biosciences Information Service; Geobase; GEOBASE; Mineralogical Abstracts; Science Citation Index; SciSearch; VINITI (All-Russian Institute of Scientific and Technical Information); *Zoological Record*.

© 2014 The Royal Society of Edinburgh.

The Royal Society of Edinburgh, Scotland's National Academy, is Scottish Charity No. SC 000470

Cover image: top left – Section at Burnt Wood; top right – Ichneumon wasp: *Eusterinx arcuatus*; middle left – Fern leaf: *Acrostichum lanzaeanum*; bottom left – Damselfly wing: *Anglohypolestes fasciata*; bottom right – Snail: *Lymnaea (Galba) longiscata*.

The Fauna and Flora
of the Insect Limestone
(late Eocene),
Isle of Wight, UK
Volume I

Guest Editor
Andrew J. Ross

EESTRSE Overseeing Editor
Andrew Smith

ISBN: 978 0 902198 57 9

CONTENTS

Andrew J. ROSS The fauna and flora of the Insect Limestone (late Eocene), Isle of Wight, UK: Preface	231
Andrew J. ROSS and Angela SELF The fauna and flora of the Insect Limestone (late Eocene), Isle of Wight, UK: introduction, history and geology	233
Peta Angela HAYES and Margaret Elizabeth COLLINSON The flora of the Insect Limestone (latest Eocene) from the Isle of Wight, southern England	245
Martin C. MUNT Mollusca from the Insect Limestone (Bembridge Marls Member: Bouldnor Formation: Solent Group), Paleogene, Isle of Wight, southern England	263
Paul A. SELDEN Spiders (Arachnida: Araneae) from the Insect Limestone (Bembridge Marls, late Eocene) of the Isle of Wight, southern England	275
André NEL and Gunther FLECK Dragonflies and damselflies (Insecta: Odonata) from the late Eocene of the Isle of Wight	283
Dany AZAR Tertiary bark lice (Insecta: Psocodea) from the Insect Limestone (Bembridge Marls, late Eocene) of the Isle of Wight, UK	307
Alexey SHMAKOV Thrips (Insecta: Thysanoptera) from the Insect Limestone (Bembridge Marls, late Eocene) of the Isle of Wight, UK	317
Irina D. SUKATSHEVA Caddis-flies (Insecta: Trichoptera) from the Insect Limestone (Bembridge Marls, late Eocene) of the Isle of Wight, UK	327
Alexander V. ANTROPOV, Sergey A. BELOKOBYSKIY, Stephen G. COMPTON, Gennady M. DLUSSKY, Andrey I. KHALAIM, Victor A. KOLYADA, Mikhail A. KOZLOV, Ksenia S. PERFILIEVA and Alexandr P. RASNITSYN The wasps, bees and ants (Insecta: Vespida = Hymenoptera) from the Insect Limestone (late Eocene) of the Isle of Wight, UK	335
CONTENTS OF VOLUME 104	(449)
AUTHOR INDEX TO VOLUME 104	(451)



Photograph taken of the party attending the field trip to the Isle of Wight in May 2005, standing outside Edwin A'Court Smith's house. Front (sitting) l-r: Yuri Popov; Carmen Soriano. Rear, l-r: Andrej Gorokhov; Vladimir Zlobin; Andrei Kurochkin; Andy Yule; Piotr Wegierek; Jacek Szwedo; Alexander Kirejtshuk; Wieslaw Krzeminski; Alexandr Kuzmina; Ryszard Szadziwski; Svetlana Kuzmina; Mr Green (owner of the house); André Nel; Anatoly Alekseev; Dany Azar; Vladimir Blagoderov; Sonja Wedmann; Sam Heads; Sergey Belokobylsky; Andrew Ross; Andrei Khalaim; Mikhail Kozlov; Andy Gale; Craig Buckley; Claire Mellish; Peta Hayes; Jackie Skipper; Vadim Grachev; Alexandr Rasnitsyn.



Mikhail ('Misha') Kozlov, relaxing in the evening of 26th May 2005 in a caravan at Thorness Bay Holiday Park, Isle of Wight.



Vadim Grachev on the coach outside the Natural History Museum, London on 21st May 2005, which was about to travel to the Isle of Wight. (With (behind) l-r: Anatoly Alekseev; Carmen Soriano; Yuri Popov; Alexander Kirejtshuk; Alexander Ponomarenko; *et al.*).