

Earth and Environmental Science

Transactions of the Royal Society of Edinburgh



volume 100 part 3 2010
(for 2009)

**Ordovician brachiopods from the
Southern Uplands of Scotland**

**The Pennsylvanian amphibian
*Platyrhinops lyelli***

**Microfossil assemblages of the
Lower Limestone Formation,
Midland Valley, Scotland**

**†*Henningsmoenicaris* and
heterochrony in early crustacean
evolution**

Erratum

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 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; 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

Paul BISHOP
University of Glasgow
(Chairman & Editor-in-Chief)

Maggie GILL
Rural & Environmental Research &
Analysis Directorate

Andrew SMITH
Natural History Museum,
London

Mike BENTON
University of Bristol

John GRACE
University of Edinburgh

Colin SNAPE
University of Nottingham

Michael BIRD
James Cook University
Queensland, Australia

Tricia HENTON
Environment Agency, Bristol

Roy THOMPSON
University of Edinburgh

Maggie CUSACK
University of Glasgow

Ian PARSONS
University of Edinburgh

Anton ZIOLKOWSKI
University of Edinburgh

Doug FETTES
British Geological Survey, Edinburgh

Martin SIEGERT
University of Edinburgh

Duncan MACMILLAN
(*Ex Officio: RSE Curator*)

Consulting Editors

P. AHLBERG
Lund University
Sweden

B. W. CHAPPELL
Macquarie University
Sydney, Australia

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

P. A. ALLEN
Imperial College
London, UK

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

J. C. KNOX
University of Wisconsin
Madison, USA

M. ARIMA
Yokohama National University
Japan

J. F. DEWEY
University College, Oxford
UK

D. WALOSZEK
Universität Ulm
Germany

S. BANNO
Kyoto University
Japan

P. DONOGHUE
University of Bristol
UK

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

R. L. CARROLL
McGill University, Montreal, Canada

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 101 (2010) will be published in three parts (two single issues and one double issue).

An annual subscription costs GBP228/ USD432 (Print plus Online) or GBP217/ USD406 (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; Geoabstracts; GEOBASE; Mineralogical Abstracts; Science Citation Index; SciSearch; VINITI (All-Russian Institute of Scientific and Technical Information); *Zoological Record*.

© 2010 The Royal Society of Edinburgh.

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

Cover image: Developmental stages 8–10 of †*Henningsmoenicaris scutula* (Walossek & Müller, 1990). From Haug *et al.*, pp. 311–350