Notice of Annual General Meeting and Annual Address

The 165th Annual General Meeting will be held in the Flett Lecture Theatre, Natural History Museum, London SW7 5BD on Wednesday, 18th April, 2012 at 4.00 pm. The Annual Report of Council will be presented, along with Income and Expenditure Accounts for the year ended 31st December 2011, and Council Members and Officers will be elected for the ensuing year. Tea and coffee will be available from 3.30 pm in the foyer of the Flett Lecture Theatre. This meeting is open to all members of the Society.

The AGM will be followed by the Society's Sixth Annual Lecture, to be given by Dr. Mark Sutton (Department of Earth Science & Engineering, Imperial College London) on "Virtual Fossils and the Herefordshire Lagerstatte". The event will be held in the Flett Lecture Theatre, Natural History Museum, Cromwell Road, London, SW7 5BD at 4.15 pm. This event is open to members of the Society and other interested parties.

NEWSLETTER 28

1 Publications: Volume 165 was published in December 2011.

Vol. 165, 2011 (for 2011) (£230):

- 636. The eurypterid *Stoermeropterus conicus* from the Lower Silurian of the Pentland Hills, Scotland, by J. C. Lamsdell (pp. 1–84, pls 1–15, complete. £90.00).
- 637. The Lower Ordovician cephalopod faunas of the Durness Group, north-west Scotland, by D. H. Evans (pp. 1–131, pls 1–15. £140.00).

The Editors welcome suggestions for new titles and would also be grateful for manuscripts that represent concluding or additional parts of ongoing, unfinished monographs.

2 Subscriptions for 2012 were considered due on 1st January 2012 and will entitle subscribers to Volume 166. Individual subscriptions are £35.00. Institutional subscriptions are £125.00, though if paid through an agency are £240.00. The Student rate remains at half the individual rate, £17.50.

Subscriptions can be sent to Dr M. P. A. Howe, The Treasurer, c/o British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, NG12 5GG, United Kingdom (cheques, drawn on a UK bank, should be made payable to 'The Palaeontographical Society'). A subscription renewal form for 2012 (Volume 166) was enclosed with the recent mailing of Volume 165. If a replacement is required please download one from the Society website or contact the Treasurer.

The Society also accepts credit card payments for subscriptions and renewals via PayPal. If you wish to pay via this method please follow the instructions on the 2012 subscriptions form or visit the Society's website (www.palaeosoc.org).

The Treasurer maintains the membership list and prepares the distribution list for each volume of monographs. Any enquiries concerning subscriptions or methods of payment should be directed to the Treasurer. His e-mail address is mhowe@bgs.ac.uk.

- 3 The Society's Web Site (www.palaeosoc.org) and Online Shop was launched in 2009 and continues to be an effective tool for posting new information on the Society (including progress reports for Palaeontographical Society Research Grants and other announcements), and for selling Society publications and enabling credit card payments for membership renewals. To obtain the member's discount from the online shop, a password is required. If you have not already registered your e-mail address with us and been issued with your personal password please contact the President (a.smith@nhm.ac.uk), who will be pleased to issue you with one.
- **4 Research funds:** The Palaeontographical Society Research Fund scheme is renamed the Richard Owen Research Fund from 2012. It aims to provide awards in the region of £500 for research on the UK fossil flora and fauna. Please see the website or contact the Secretary (Steve.Donovan@ncbnaturalis.nl) for further information. The next closing date for applications is 28^{th} February 2012 and the successful applicant(s) will be announced at the AGM. One grant was awarded in 2011:
 - D. Carpenter (University of Bristol) A Lower Carboniferous (Tournasian) fossil assemblage from Bute, Scotland: systematic palaeontology and palaeoecology.

A report on this project is appended to the end of this Newsletter.

5 The Edward Forbes Prize: The Society invites applications for the newly instituted Edward Forbes Prize, which aims to recognise outstanding contributions by early career researchers in the field of taxonomic and systematic palaeontology (encompassing invertebrates, vertebrates, palaeobotany and microfossils). The Prize, which is to be awarded for publication excellence, comprises £250 and a one-year membership of the Society. The Prize will be awarded at the Society's Annual General Meeting each year. Full criteria for eligibility are posted on the Society's website.

We invite submissions for the 2012 award on the basis of any eligible article that was published in 2011. Applications should be

addressed to the Secretary Dr. Steve Donovan (Steve.Donovan@ncbnaturalis.nl), and must be received by the closing date of 2nd March 2012. The decision of the Prize Committee will be announced at the Society's AGM. The successful applicant will be informed in advance, so that they may attend the meeting if they wish.

- **6 Discount rate on backstock for Members and Authors:** Individual Members are reminded that they are entitled to a discount of at least 50% on the purchase of one copy of any backstock and reprinted editions where available. This discount is available via the website when using your member login details. Authors are entitled to receive a 75% discount on backparts of monographs they contributed to. If authors wish to purchase backstock they should contact the Treasurer (mhowe@bgs.ac.uk).
- **7 Society Archives**: Members of the Society wishing to view the archives of the Palaeontographical Society should write to the Secretary (Steve.Donovan@ncbnaturalis.nl).
- 8 Annual Address: The subject of the Fifth Annual Address is "Virtual Fossils and the Herefordshire Lagerstatte". This year's speaker is Dr. Mark Sutton who is Senior Lecturer in the Department of Earth Science & Engineering, Imperial College London. Dr. Sutton is a leading exponent of modern techniques for the reconstruction of ancient metazoans in three dimensions. His work on the Herefordshire Lagerstatte has restored this unusual assemblage of Silurian marine organisms to its former glory, albeit on the computer screen. This promises to be a fascinating talk, and details of the meeting venue and date are given above. The abstract for the Address will be available on the front page of the Society's website (www.palaeosoc.org).
- **9 Lyell Meeting:** The Society is a sponsor of the Lyell Meeting, which will be held in the Meeting Room of the Geological Society (Burlington House) on Thursday 29th March 2012. This year's Lyell Meeting is being convened by Drs Jeremy Young (University College London) and Tom Dunkley Jones (University of Birmingham) and is entitled: "Big Palaeontology".
- **10** Nominations for Council: The Palaeontographical Society is open for nominations to council for 2012–15. The council meets twice a year and is responsible for overseeing the running of the Society and for providing guidance on how it can best serve its membership's needs. Any member of the Society can nominate a candidate, and names will be considered at the AGM. Members should nominate a candidate by sending an email to the Secretary (Steve.Donovan@ncbnaturalis.nl) together with a statement from the candidate that he/she is willing to be considered.
- 12 Financial advisor: Council is still seeking an individual from among the membership who has past experience in investments management and who would be willing to offer the Society informal advice on financial matters. Please contact the Treasurer (mhowe@bgs.ac.uk) if you would be interested in taking on such a role.
- 13 New members: We extend a warm welcome to the following recent new members of the Society: Abruzzo Chieti (Italy), Fariba Foroughi (France), John Harvey (UK), Rhys Hughes (UK), Jacques Lambrecht (Belgium), Giuseppe Muscio (Italy), Stephen Vidovic (UK) and Peter Wilcock (UK).
- **14 Newsletter:** If in future you would prefer to receive this newsletter and the Annual Report in electronic form (rather than hardcopy) please send your details to Steve Donovan (Steve.Donovan@ncbnaturalis.nl).

S. K. Donovan Secretary February 2012 c/o Department of Geology,
NCB - Naturalis,
Postbus 9517,
2300 RA Leiden, THE NETHERLANDS.

PALAEONTOGRAPHICAL SOCIETY RESEARCH FUND REPORT

A Lower Carboniferous (Tournaisian) fossil assemblage from Bute, Scotland: systematic palaeontology and palaeoecology

David Carpenter

School of Earth Sciences, University of Bristol

Though overshadowed somewhat by the nearby island of Arran, the geology of Bute has nonetheless received considerable attention (e.g., Hill & Buist, 1995); the diverse range of rock types of different ages exposed here give an opportunity to study a wide variety of geological settings. It is perhaps strange, given the longstanding interest the island has generated, that relatively little investigation into its vertebrate palaeontology has been carried out; despite occasional references in the older literature to 'fossil fish and plants' in the Carboniferous sediments of the island (e.g., Bryce, 1872), only a single study on the subject has been published (Matheson, 1963).

Recent discoveries of impressive fossil plant remains (Falcon-Lang *et al.*, 2010) have re-ignited interest in the island. Over the last year I have processed and described a vertebrate assemblage consisting of isolated teeth, scales, and fragmented skeletal material, collected from the island by Mrs Elsa Henderson and transported to Bristol for study. The assemblage was extracted by acetic acid digestion of the matrix followed by standard fossil sorting and picking procedures, and imaged using standard light microphotography and scanning electron microscopy, as appropriate. Identification of the material was aided by examination of Matheson's collection, from Hawk's Nib on Bute's south coast, housed in the Glasgow Hunterian museum, along with other relevant specimens.

Locality, lithology, and stratigraphic setting

The fossil site is located near Montford on the east coast of the Isle of Bute, Scotland, approximately 1.5 km southeast of Rothesay. The fossiliferous beds consist of red-brown mudstones interbedded with thin dolostones and limestone; it is within the mudstones that the fossils are found. This stretch of coastline is punctuated by several small fault-bounded basins where Lower Carboniferous rocks have been downthrown against blocks of Old Red Sandstone. Based on correlation with British Geological Survey Borehole NS06 SE/8 at Ascog (Grid Ref. NS 09866302, approx. 1 km southwest of the fossil site), and on their lithological similarity, the fossiliferous beds most likely belong to the late Tournaisian Ballagan Formation (H. Falcon-Lang, pers. comm).

The following taxa were identified:

Subphylum Vertebrata

Class Chondrichthyes

Agelodus pectinatus

.....

Class Osteichthyes

Subclass Sarcopterygii

Infraclass Tetrapodamorpha

Order Rhizodontida

cf. Archichthys portlocki

cf. Strepsodus sauroides

Sarcopterygii Incertae Ordinis

?Megalichthyidae indet.

?Megalichthys sp.

Infraclass Dipnomorpha

Order Dipnoi

?Sagenodus sp.

Subclass Actinopterygii

Actinopterygii indet.

Class Acanthodii

Order Climatiiformes

Climatiiformes indet.

Assemblages of this kind are commonly associated with brackish or freshwater environments, though it has been comprehensively demonstrated that most of the component taxa were euryhaline to some degree (for a summary of the issues surrounding the identification of freshwater environments from the fossil record, see Schultze, 2009); nevertheless, a non-marine interpretation is in accord with geological observations from the site which indicate deposition in pools on a dry alluvial plain (H. Falcon-Lang, pers. comm.). An interesting feature in this case is that several of the Montford taxa are represented by juveniles, leading us to speculate that that this kind of environment may have functioned as a nursery for certain Carboniferous fishes.

A manuscript is currently in preparation, in collaboration with Howard Falcon-Lang (Royal Holloway, University of London) and Elsa Henderson, for submission to *Palaeontology* detailing these findings.

References

- Bryce, J. 1872. Geology of Arran and other Clyde islands. Fourth edition. Collins, Glasgow and London.
- Falcon-Lang, H. J., Henderson, E. and Galtier, J. 2010. Tree trunks of *Pitus Primaeva* in Mississippian (Courceyan) rocks at Montford, near Rothesay, Isle of Bute, Scotland. *Scottish Journal of Geology*, **46**, 59–65.
- Hill, J. and Buist, D. 1995. A Geological Field Guide to the Island of Bute, Scotland. Geologists' Association Guide, 51.
- Matheson, G. D. 1963. Ganoid fishes in Bute. Transactions of the Buteshire Natural History Society, 15, 38-42.
- Schultze, H-P. 2009. Interpretation of marine and freshwater palaeoenvironments in Permo-Carboniferous deposits. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **281**, 126–136.

CATALOGUE OF MONOGRAPHS PUBLISHED OR COMPLETED SINCE 2006

Volume 165 (for 2011) published December 2011(£230):

- 637. **Evans, D.H.** The Lower Ordovician cephalopod faunas of the Durness Group, north-west Scotland (Complete). 131 pp., pls 1–15. £140.00.
- 636. **Lamsdell, J.C.** The eurypterid *Stoermeropterus conicus* from the Lower Silurian of the Pentland Hills, Scotland (Complete). 84 pp., pls 1–15. £90.00.

Volume 164 (for 2010) published December 2010. £230, complete.

- 635 **Donovan, S.K., Widdison, R.E., Lewis, D.N. & Fearnhead, F.E.** 2010. The British Silurian Crinoidea. Part 2, Addendum to Part 1 and Cladida. 47–133, pls 7–36. £105.00.
- Hooker, J.J. 2010. The mammal fauna of the early Eocene Blackheath Formation of Abbey Wood, London (Complete). 162 pp., pls 1–4. £125.00.

Volume 163 (for 2009) published December 2009. £210, complete:

- 633 **Edmunds, M.** 2009. A revision of the Lower Jurassic ammonite genus *Eoderoceras* Spath and its immediate descendants and other relatives (Complete). 89 pp., pls 1–40. £140.00.
- 632 **Donovan, S. K., Lewis, D. N., Fearnhead, F. E. & Widdison, R. E.** 2009. The British Silurian Crinoidea. Part 1, Introduction and Disparida. 1–45, pls 1–6. £70.00.

Volume 162 (for 2008) published December 2008. £210, complete:

- 631 **Brusatte, S. L., Benson, R. B. J. & Hutt, S.** 2008. The osteology of *Neovenator salerii* (Dinosauria: Theropoda) from the Wealden Group (Barremian) of the Isle of Wight (Complete). 75 pp., pls 1-45. £120.00.
- 630 Smith, A. B. & Wright, C. W. 2008. British Cretaceous echinoids. Part 8. Atelostomata, 2. Spatangoida (1). 569-635, pls 183-209. £90.00.

Volume 161 (for 2007) published December 2008. £210, complete:

- 629 **Cocks, L. R. M.** 2008. A revised review of British Lower Palaeozoic brachiopods (Complete). 276 pp., pls 1-10. £125.00.
- **Vandenbroucke, T. R. A.** 2008. Upper Ordovician chitinozoans from the British historical type areas and adjacent key sections (Complete). 113 pp., pls 1-31. £85.00.

Volume 160 (for 2006) published February 2008. £200, complete:

- 627 Sadleir, R., Barrett, P. M. & Powell, H. P. 2008. The anatomy and systematics of Eustreptospondylus oxoniensis, a theropod dinosaur from the Middle Jurassic of Oxfordshire, England. (Complete). 82 pp., pls 1-20. £110.00.
- 626 **Nikolaeva, S. V.** 2008. The Carboniferous ammonoids from the Gilbertson Collection described by John Phillips. (Complete). 70 pp., pls 1-17. £90.00.

Volume 159 (for 2005) published December 2006. £200, complete.

- 625 **Barras, C.** 2005. British Jurassic Irregular Echinoids. (Complete). 273 pp., pls 1-14. f130 00
- 624 **Harper, D. A. T.** 2005. Brachiopods from the Upper Ardmillan succession (3). 129-187 pp., pls 23-33. £70.00.

PALAEONTOGRAPHICAL SOCIETY

Established 1847

Registered Charity No. 228372

ANNUAL REPORT FOR 2010-11

The following volumes appeared in 2011:

Volume 165 (for 2011) published December 2011(£230):

- 636. **Lamsdell, J.C.** The eurypterid *Stoermeropterus conicus* from the Lower Silurian of the Pentland Hills, Scotland (Complete). 84 pp., pls 1–15. £90.00.
- 637. **Evans, D.H.** The Lower Ordovician cephalopod faunas of the Durness Group, north-west Scotland (Complete). 131 pp., pls 1–15. £140.00.

The Palaeontographical Society exists for the purpose of figuring and describing British fossils. It publishes monographs to this end; these may be restricted geographically, stratigraphically or palaeontologically. Intending contributors may obtain a copy of the Society's 'Notes for Authors' from a Co-Secretary, Editor or directly from the Society website (www.palaeosoc.org).

An Annual Volume is published, consisting of a number of complete monographs or individual part monographs.

Each person subscribing £35.00, each *bona fide* student subscribing half that amount, and each Institution subscribing £125.00 (£240.00 via an agency), is considered a Member of the Society and is entitled to the volume issued for the year to which the subscription relates. Subscriptions are considered due on 1^{st} January of each year. Applications for membership (and renewals) can be completed online (www.palaeosoc.org) or via the Treasurer (mhowe@bgs.ac.uk).

Many monographs are not now available in original print, but some out-of-print monographs have been reprinted. Full details of the reprinted publications may be obtained from the Society website. Many monographs are also available in micro-edition (5x3) as diazo or as silver halide microfiche from Microform Ltd., Main Street, East Ardsley, Wakefield, Yorkshire WF3 2JN.

Published volumes, monographs or individual parts may be obtained through the Society website (www.palaeosoc.org). Members of the Society are entitled to a minimum 50% discount on all publications. Published prices do not include postage and packing.

Thanks to the generosity of the publishers, a set of volumes up to 1972 of the *Treatise of Invertebrate Paleontology*, editor R. C. Moore, is available for Members' reference in the D. M. S. Watson Library, University College, London.

Secretary: Dr. Stephen K. Donovan, Department of Geology, NCB – Naturalis, Postbus 9517, 2300 RA Leiden, The Netherlands.

February 2012

REPORT OF THE COUNCIL

for the year ending 31st December 2010

Read and adopted at the 164th Annual General Meeting held in the Flett Lecture Theatre of the Natural History Museum, London on the afternoon of 12th April 2011, Dr A. B. Smith, The President. in the Chair.

One volume was published in 2010 (164) for the year 2010, comprising the following parts:

Volume 164 (for 2010) published December 2010. £230, complete.

- **Donovan, S.K., Widdison, R.E., Lewis, D.N. & Fearnhead, F.E.** 2010. The British Silurian Crinoidea. Part 2, Addendum to Part 1 and Cladida. 47–133, pls 7–36. £105.00.
- 634 **Hooker, J.J.** 2010. The mammal fauna of the early Eocene Blackheath Formation of Abbey Wood, London (Complete). 162 pp., pls 1–4. £125.00.

During the year, £5926.87 was received from the sales of back-stock held by the Society.

The balance shown in the Statement of Accounts stands at £62678.64. The Income and Expenditure Account for 2010 is annexed.

One grant was awarded from the Palaeontographical Society Research Fund in 2010, to Mr. D. Carpenter.

The Fourth Annual Address of the Society was delivered by Professor Paul Pearson (University of Cardiff) on "Species and time" on 14th April 2010 at the Natural History Museum.

COUNCIL 2011-2012

Following the Annual General Meeting, held on Wednesday 12th April 2011, Dr M. Williams retired as Vice-President, and Dr S. J. Braddy was elected as a new Vice-President. Dr M. Munt was elected as Marketing Manager. Dr M. P. A. Howe was re-elected as Treasurer. Drs D. Loydell and B. Cox were re-elected as Editors, and Drs S. L. Long and P. M. Barrett were re-elected as Co-Secretaries. Dr G. Mullins retired from Council. Dr M. Friedman and Dr M. J. Simms were elected new members of Council.

President Dr A. B. Smith

Vice-Presidents Dr. P.M. Barrett and Dr S. J. Braddy

Treasurer Dr M. P. A. Howe **Secretary** Dr S. K. Donovan

Editors Dr D. Loydell and Dr B. Cox

Marketing Manager Dr M. Munt

Other Members Prof. R. J. Aldridge, Mr. R. Chandler, Prof. M. Collinson, Dr M.

Friedman, Dr. M. Richter, Dr M. J. Simms and Dr. Y. Candela.