Notice of Annual General Meeting and Annual Address

The 168th Annual General Meeting will be held in the Neil Chalmers Seminar Room of the Natural History Museum, London SW7 5BD, on Wednesday, 15th April, 2015, at 4.00 pm. The Annual Report of Council will be presented, along with Income and Expenditure Accounts for the year ended 31st December, 2014, and Council Members and Officers will be elected for the ensuing year. Tea and coffee will be available from 3.30 pm. This meeting is open to all members of the Society.

The AGM will be followed by the Society's Ninth Annual Lecture, to be given by Professor Jane Francis (British Antarctic Survey) on "When Antarctica was green: fossil plants reveal Antarctica's climate history". The event will be held in the Neil Chalmers Seminar Room of the 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 31

1 Publications: Volume 167 was published in March 2014.

Vol. 167 (for 2013), 2014 (£240.00)

640. Late Ordovician ostracods of the Girvan District, south-west Scotland, by Mohibullah Mohibullah, M. Williams & J. Zalasiewicz (pp. 1-40 pp., plates 1-6, complete, £25.00).
641. Lower Jurassic Foraminifera from the Llanbedr (Mochras Farm) Borehole, North Wales, UK, by P. Copestake & B. Johnson (pp. 1-403, plates 1-21, complete, £215.00).

Volume 168 was published in October 2014.

Vol. 168, 2014 (£260.00)

642. Osteology of *Rhomaleosaurus thorntoni* (Sauropterygia: Rhomaleosauridae) from the Lower Jurassic (Toarcian) of Northamptonshire, England, by A.S. Smith & R.B.J. Benson (pp. 1-40, plates 1-35, complete. £125.00).
643. The British Devonian Crinoidea, Part 1, introduction and Camerata, by S.K. Donovan & F.E. Fearnhead (pp. 1-55, plates 1-15. £135.00).

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

Members and subscribers are asked to note that a small number of issues of monograph #643 have been printed with some pages missing, repeated and/or in the wrong order. Please check you copy. If it is defective, please contact the editor, Dr Beris Cox, <beris.cox@btinternet.com>.

2 Subscriptions for 2015 were considered due on 1st January, 2015, and will entitle subscribers to Volume 169. Individual subscriptions are £35.00. Institutional subscriptions are £135.00, though if paid through an agency are £260.00. The Student rate remains at half the individual rate, £17.50. There is a surcharge of £1.50 when subscriptions are paid through PayPal.

Subscriptions can be sent to Dr. T. McCormick, The Treasurer, c/o British Geological Survey, Environmental Science Centre, Nicker Hill, 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 2015 (Volume 169) was enclosed with the mailing of Volume 168. 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 2015 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 tmcm@bgs.ac.uk.

3 The Society's Web Site (www.palaeosoc.org) and Online Shop continue 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 have yet to be issued with your personal password, please contact Dr. A. Butcher (anthony.butcher@port.ac.uk), who will be pleased to issue you with one.

4 Research funds: The Palaeontographical Society Research Fund scheme was renamed the Richard Owen Research Fund in 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@naturalis.nl) for further information. The next closing date for applications is 28th February, 2015, and the successful applicant(s) will be announced at the AGM. Two grants were awarded in 2014:

Delbarre, D.J. (University of Oxford). Anatomy and relationships of †*Aulolepis* (†Ctenothrissiformes: †Aulolepidae): implications for deep divergences within eurypterygian fishes.

Lehmann, J. (University of Bremen). The Ammonoidea of the Lower Greensand - a revision of the British ammonite fauna (including a comparison with continental faunas).

Reports on these projects appears below.

5 The Edward Forbes Prize: The Society invites applications for the 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 2015 award on the basis of any eligible article that was published in 2014. Applications should be addressed to the Secretary, Dr. Steve Donovan (Steve.Donovan@naturalis.nl), and must be received by the closing date of 28th February, 2015. 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 The Palaeontographical Society Medal. Council has instigated a biannual award, the Palaeontographical Society Medal, which is intended to recognise a sustained and important series of contributions to taxonomic and systematic palaeontology. In particular, the Society seeks to honour those who have made an exceptional contribution to the micropalaeontology, palaeobotany, or invertebrate or vertebrate palaeontology of the British Isles, including those who have applied these data to solve problems of palaeogeography, palaeoecology and phylogeny. Recipients will not be limited to palaeontologists based in the British Isles, although it is anticipated that this region will form an important element of their research programme. The first award was be made at the Annual General Meeting in April 2014 to Professor W. James Kennedy (University of Oxford).

The Council of the Society welcomes nominations and suggestions for future recipients of the Medal. Please contact the Secretary at Steve.Donovan@naturalis.nl.

7 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 (tmcm@bgs.ac.uk).

Student members are now eligible for a 75% discount off the cover price of monographs published by the Society (see advertisement herein). The discount is not applied automatically in the online store, however, so please contact the Marketing Manager, Emma Bernard at E.Bernard@nhm.ac.uk, if you are interested in making any purchases.

8 Society Archives: Members of the Society wishing to view the archives of the Palaeontographical Society should write to the Secretary (Steve.Donovan@naturalis.nl).

9 Annual Address: The subject of the Ninth Annual Address is "When Antarctica was green: fossil plants reveal Antarctica's climate history". This year's speaker is Professor Jane Francis of the British Antarctic Survey.

Abstract: When Antarctica was green: fossil plants reveal Antarctica's climate history

Jane Francis, High Cross, Madingley Road, Cambridge CB3 0ET

Although the polar regions are currently covered in ice and snow, life was very different at high latitudes under past warm climates millions of years ago – the polar regions were green. Fossil plants (leaves, wood, pollen, seeds and flowers) preserved in rocks from Antarctica show that the continent was once covered in lush green forests that flourished in warm humid climates, despite the extreme polar light regime of continuous summer sunlight and long dark winters. Migration of warmth-loving floras into high latitudes occurred during times of extreme warmth; for example, during the Cretaceous (~90 million years ago) tropical species migrated as far south as Antarctica. The last Antarctic forests survived as dwarf tundra shrubs in the Beardmore Glacier region, only 300 miles from the South Pole, even as the ice sheets spread across the continent about 12 million years ago. Antarctic plant fossils contain a rich store of palaeoclimate information about past polar environments and provide us with a window into life at high latitudes in our future warm world.

10 Meetings: The Society is a sponsor of the Lyell Meeting, which will be held in the Meeting Room of the Geological Society (Burlington House) on Wednesday, 11th March, 2015. This year's Lyell Meeting is being convened by Dr Angela Coe (Open University) and Professor Alan Lord (Senckenberg Forschungsinstitut), and is entitled: "Mud, glorious mud, and why it is important for the fossil record".

11 Cambridge University Press reprints. The Society has signed an agreement with Cambridge University Press (CUP), who are scanning the backstock of the Society for 1849-*c*. 1920, supplemented from other sources to fill any gaps. These are being

organised into monographs and issued (print on demand) as joint CUP/Society publications. This arrangement promises many potential benefits for the Society and its members. Some out of print monographs are once again available and obtainable at a 50% discount to members through a link from the Society's website to CUP. The sale of each publication will raise a small royalty for the Society. A pdf of each monograph will be available for the Society's archives (CUP will retain copyright for these pdfs). The logo and name of the Society will be prominently displayed on these publications.

12 Nominations for Council: The Palaeontographical Society is open for nominations to council for 2015–2018. 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@naturalis.nl) together with a statement from the candidate that he/she is willing to be considered.

13 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 (tmcm@bgs.ac.uk) if you would be interested in taking on such a role.

14 New members: We extend a warm welcome to the following recent new members of the Society: Stuart A. Baldwin (Essex) and Nigel Ainsworth (Herts).

15 Professor Richard Aldridge (1945--2014): A former Council member, distinguished member of the Society and an internationally renowned expert on the conodonts, Professor Aldridge passed away in February. For an obituary, see *Journal of Micropalaeontology*, volume 33 (2014), pp. 223--224.

16 G.W. Young and the Palaeontographical Society: George William Young, F.G.S. (1862—1929), was a Londoner born and bred. He became a partner and, later, owner of a printing firm in Battersea, and was an active member of the London Master Printers' Association. His hobby was natural history, particularly geology, and his achievements included mapping the zones of the chalk in Surrey. A member of many scientific societies, he was on the council of the Geological Society (1908—1911), and Secretary (1907—1912) and President (1914—1916) of the Geologists' Association (GA), among others. The GA elected him an honorary member in 1925.

On his death in 1929, George Young bequeathed a legacy to various 'personal' and 'public' beneficiaries, including the Palaeontographical Society and the GA, in the form of a trust fund. His choice of recipients reveals an interest in education and children's welfare as well as the geological sciences. The Palaeontographical Society and other beneficiaries received an annual income from this trust until 2014 when, on the death of the last personal beneficiary, the balance was distributed among the public beneficiaries and the trust wound up.

[Sources: Davies, A.M. 1930. *Proceedings of the Geological Society*, **86**, lxvii; W.J. 1930. *Proceedings of the Geologists'Association*, **41**, 100--102.]

S. K. Donovan
Secretary
January 2015

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PALAEONTOGRAPHICAL SOCIETY RESEARCH FUND REPORTS

Anatomy and relationships of †*Aulolepis* (†Ctenothrissiformes: †Aulolepidae): Implications for deep divergences within eurypterygian fishes

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Spiny-finned teleosts (Acanthomorpha) are an important component of modern vertebrate biodiversity. There are over 18,000 living species (Smith & Wheeler, 2006), and they are both morphologically and ecologically diverse. The earliest acanthomorphs are known from the Cenomanian, when they were a minor part of the vertebrate assemblage. After the end Cretaceous extinction event, the acanthomorphs underwent a huge radiation to fill a large number of vacant ecological niches, which they still occupy (Friedman, 2010).

Our understanding of the evolution of this important group is somewhat limited as the early acanthomorphs from the Cretaceous are from modern lineages (i.e., they are crown group acanthomorphs). However, another group of fishes, †Ctenothrissiformes, have been regarded as stem acanthomorphs (Regan, 1907; Gregory, 1933; Patterson, 1964; Rosen, 1973). These exclusively Cenomanian-Turonian fishes have an interesting mix of characters, exhibiting both primitive teleost and more

advanced acanthomorph traits. †Ctenothrissiformes are split into two families, the highly specialised †Ctenothrissidae (e.g., †*Ctenothrissa*) and the more generalised †Aulolepidae (e.g., †*Aulolepis*).

The †ctenothrissiforms have not formed the focus of any study since the late 1970s (Gaudant, 1978). Since then, there have been significant developments in our knowledge of the morphological characteristics of eurypterygian fishes, which include acanthomorphs, their sister group, the Myctophiformes (lanternfish and blackchins; Stiassny, 1996), and the more deeply diverging Aulopiformes (lizardfish; Baldwin and Johnson, 1996; Sato and Nakabo, 2002). By revisiting the †ctenothrissiforms, we can now reinvestigate how they relate to modern fishes and develop a greater understanding of the early evolutionary history of the contemporary vertebrate fauna.

I have concentrated on the most generalised †ctenothrissiform, †*Aulolepis typus*, which is known from a few specimens found exclusively in the English Chalk. Initially I CT scanned one of the more complete specimens. This allowed me to see inside the fossil and study previously concealed anatomy, such as the gill skeleton. However, most specimens of †*Aulolepis* are incomplete, so it is also necessary to study a number of specimens to extract enough relevant anatomical data. Funding provided by the Palaeontographical Society has allowed me to visit museum collections, such as those of the Natural History Museum – where most of the †*Aulolepis* specimens are held – to gather this crucial additional data.

Interestingly, I found that †*Aulolepis* lacks key anatomical characteristics of acanthomorphs, myctophiforms and even ctenosquamates (the group including both acanthomorphs and myctophiforms). Contrary to the classical view that †*Aulolepis* is an acanthomorph relative, I found that it has a number of traits confined to the more deeply diverging aulopiforms. Work is still on going to determine the exact position of †*Aulolepis* relative to both living and fossil aulopiforms. Once completed, this study will allow us to explore the validity of long held views of character evolution within Eurypterygii. Although †*Aulolepis* is not a stem acanthomorph it is still extremely important in helping to develop our understanding of the evolutionary history of contemporary teleosts.

My work on †*Aulolepis* should be completed over the next few months. I aim to publish both our phylogenetic and anatomical work later this year. As part of this project I have also been studying †*Ctenothrissa*, the more specialised †ctenothrissiform. However, we do not have sufficient anatomical data to currently determine how it relates to living taxa. Hopefully, forthcoming visits to other collections will allow me to find more suitable specimens of †*Ctenothrissa*, so that this area of the project can be completed. I thank the Palaeontographical Society for providing financial support for this project. I also thank my supervisor and co-author, Matt Friedman.

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The Ammonoidea of the Lower Greensand - a revision of the British ammonite fauna (including a comparison with continental faunas)

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Due to excellent outcrops and a long collecting tradition, the rich Aptian ammonite faunas from southern England are well known and important for comparison with Aptian successions across the world. The Lower Greensand ammonite monograph by Raymond Casey (1960-1980) was published by this Society. It constitutes a very important piece of work on a supraregional scale and is surely among the most widely cited monographs of the society. Recently, Bersac & Bert (2013) used data from Casey's monograph to evaluate the status of the large number of species and subspecies described, and reduced the simple diversity to one chronospecies. In several aspects this new approach needs to be discussed. The interpretations demonstrate how important it is to give a modern approach on these ammonites, and to describe and figure additional Lower Greensand specimens.

The project was to start with collection research at the British Geological Survey (BGS) in Keyworth. However, the recent massive erosion at the Lower Greensand type locality in early 2014 changed the work schedule of revising the stratigraphy and systematics for the included ammonites. It is important to refine the knowledge about the stratigraphic distribution of ammonite species, particularly in the lower part of the Lower Greensand Group, as a tool for improving the evaluation of historic material housed in the BGS. For this reason, the perfect exposure of the lower members of the Atherfield Clay Formation have been investigated as a priority. Research focused on the lower part of the section, which is a biostratigraphically critical part with

respect to correlation, particularly in comparison to other sections in continental Europe. Since it has not been exposed so well for many years, it was not included in the valuable revision of parts of the Lower Greensand biostratigraphy and ammonite occurrences by Casey *et al*. (1998). A section of 30 m has been logged, more than 150 claystone samples have been taken for later consideration and ammonites were collected bed-by-bed.

The preliminary data emphasize the dominance of leiostracan deshayesitids in the Perna Bed Member of the lowermost Atherfield Clay Formation, including *Deshayesites lestrangei, D. jacksoni, D. obsoletus* and *D. primitivus* (all of these species were referred to by Casey, 1960-1980, as *Prodeshayesites*), and an increase in more coarsely ribbed and smaller ammonites in the Chale Clay Member. A distinctly different preservation mode is obvious for both members, but it remains unclear if this is taphonomic difference has engendered only an apparent taxonomic variance. This is in contrast to Europe where a new rich deshayesitid material recently described from north Germany hints on a broader variability (Lehmann *et al*., in press). Here, the occurrence of leiostracan ammonites occurs at multiple levels if the correlation of the two most important sections turns out to be proven and there is some evidence for an ecological steering of the morphological change.

Currently two publications are in progress:

1. A detailed correlation of the sections and ammonite occurrences of the early Aptian of southern England with that of Germany. This has been a major riddle for many decades, but appears to be possible now because of abundant new data.
2. A monographic description of new material collected bed-by-bed from the Lower Greensand Group of southern England during fieldwork of recent years, as well as yet undescribed specimens housed in the collections. This is planned as an addition and revision of Casey (1960-1980), considering the recent ideas on this monograph by Bersac & Bert (2012).

I gratefully acknowledge the financial support of the Palaeontographical Society, which enabled a visit of the type locality of the Lower Greensand Group at Atherfield, Isle of Wight, and thus measure the Atherfield Clay Formation. This research is critical for determination of the stratigraphic provenance of important index ammonites of the earliest Aptian. I thank Martin Krogmann and Dieter von Bargen (both Bremen) for assistance in the field.

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CATALOGUE OF MONOGRAPHS PUBLISHED OR COMPLETED SINCE 2009

Volume 168 (for 2014) published October 2014 (£260):

642. **Smith, A.S. & Benson, R.B.J.** Osteology of *Rhomaleosaurus thorntoni* (Sauropterygia: Rhomaleosauridae) from the Lower Jurassic (Toarcian) of Northamptonshire, England (Complete). 40 pp., pls 1-35. £125.00.

643. **Donovan, S.K. & Fearnhead, F.E.** The British Devonian Crinoidea. Part 1, introduction and Camerata. 1-55, pls 1-15. £135.00 .

Volume 167 (for 2013) published March 2014 (£240):

640. **Mohibullah Mohibullah, Williams, M. & Zalasiewicz, J.** Late Ordovician ostracods of the Girvan District, south-west Scotland (Complete). 40 pp., pls 1-6. £25.00.

641. **Copestake, P. & Johnson, B.** Lower Jurassic Foraminifera from the Llanbedr (Mochras Farm) Borehole, North Wales, UK (Complete). 403 pp., pls 1-21. £215.00.

Volume 166 (for 2012) published November 2012 (£240):

638. **Donovan, S.K., Widdison, R.E., Lewis, D.N. & and Fearnhead, F.E.** The British Silurian Crinoidea, Part 3, addendum to Parts 1 and 2, Camerata and columnals. 135-259, pls 37-62, final part. £115.00.

639. **Smith, A.B. & Wright, C.W.** British Cretaceous Echinoids, Part 9, Atelostomata, 2. Spatangoida (2). 635–754, pls 210-253, final part. £125.00.

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.

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.

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.

PALAEONTOGRAPHICAL SOCIETY

Established 1847

Registered Charity No. 228372

ANNUAL REPORT FOR 2013–2014

Volume 168 for 2014 appeared in October.

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 the 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 £135.00 (£260.00 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 1st January of each year. Applications for membership (and renewals) can be completed online (www.palaeosoc.org) or via the Treasurer (tmcm@bgs.ac.uk).

Many monographs are not now available in original print, but some out-of-print monographs have been reprinted, most recently by the Cambridge University Press. 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, Naturalis Biodiversity Center, Postbus 9517, 2300 RA Leiden, The Netherlands.

February 2015

REPORT OF THE COUNCIL
for the year ending 31st December 2013

Read and adopted at the 167th Annual General Meeting held in the Flett Lecture Theatre of the Natural History Museum on the afternoon of 16th April 2014, Dr Paul M. Barrett, The President, in the Chair.

Volume 167 (for 2013) was not published in 2013, but was in press.

One Richard Owen Research Fund award was made in 2013, to Judyth Sassoon (University of Bristol) to study a new pliosaurid from the Oxford Clay at Peterborough. The first Edward Forbes Prize was awarded to Mr J.N. Keating (University of Bristol) for his paper:

> **Keating, J.N.**, Sansom, R.S & Purnell, M.P. 2012. A new osteostracan fauna from the Devonian of the Welsh Borderlands and observations on the taxonomy and growth of Osteostraci. *Journal of Vertebrate Paleontology*, **32**, 1002--1017.

The Society provided support for the Lyell Meeting, entitled "The Cambrian Explosion – understanding Earth systems at the origin of modern ecosystems", at Burlington House in March.

During the year, £8,149.90 was received from the sales of back-stock held by the Society. The balance shown in the Statement of Accounts stands at £85,913.58. The Income and Expenditure Account for 2013 is annexed.

The Seventh Annual Address of the Society was delivered by Dr. Andrew B. Smith (Department of Earth Sciences, the Natural History Museum, London) on "Sea urchins in the Mesozoic – adaptation and survival" on Wednesday, 24th April, 2013 at the Natural History Museum.

COUNCIL 2014–2015

Following the Annual General Meeting, held on Wednesday, 16th April 2014, Professor D.A.T. Harper retired as Vice-President and Dr. M. Munt retired as Marketing Manager. Dr. M. Munt was elected as a new Vice-President and Ms E. Bernard was elected as a new Marketing Manager. Drs B. Cox and Y. Candela were re-elected as Editors, Dr T. McCormick was re-elected as Treasurer and Dr. S.K. Donovan was re-elected as Secretary. Mr. R. Chandler and Dr. M. Friedman retired from Council. Dr. F.E. Fearnhead and Mr. D.J. Ward were elected as new members of Council.

President	Dr. P.M. Barrett
Vice-Presidents	Drs D. Loydell and M. Munt
Treasurer	Dr T. McCormick
Secretary	Dr S.K. Donovan
Editors	Dr B. Cox and Dr. Y. Candela
Marketing Manager	Ms E. Bernard
Other Members	Dr. A. Butcher, Dr. T. Dunkley Jones, Professor Susan Evans, Dr. Fiona E. Fearnhead, Professor P. Kenrick, Dr. M.J. Simms, Mr. D.J. Ward.

Income and Expenditure Account for the Financial Year 2013 (year ending 31/12/2013)

Income (£)	2013	2012	2011
Members subscriptions[1]	£17,976.42	£21,663.51	£22,752.25
Stocks and shares dividends	£7,551.64	£3,913.53	£6,500.77
GW Young bequest	£0.00	£399.41	£359.22
Backstock sales[2]	£8,149.90	£2,773.22	£4,286.52
Interest from deposit accounts	£86.65	£129.33	£128.73
Repayment of grants & other items	-	-	-
Subscription to Graptolite Atlas	-	-	-
Donations	-	-	-
Reclaimed tax	-	-	-
	£33,764.61	**£28,879.00**	**£34,027.49**

Expenditure (£)	2013	2012	2011
Vol 167 origination, printing, post & packing	-	-	-
Vol 166 origination, printing, post & packing	£34,668.29	-	-
Vol 165 origination, printing, post & packing	-	£25,076.82	-
Vol 164 origination, printing, post & packing	-	-	£26,572.10
Printing Annual Report[3]	£248.39	£244.05	£256.00
Administrative expenses	£2,005.73	£1,932.73	£1,890.52
Graptolite Atlas printing & expenses	-	-	-
Bank charges	£97.50	£91.00	£91.00
Annual address	-	-	£212.33
Returned cheques unpaid / subscription refunds	£684.00	-	£17.00
Donation to Paleontological Institute, Kansas	-	-	-
Donation to Lyell Symposium	£500.00	£250.00	-
Donation to A Smith Woodward Meeting	£500.00	-	-
Research Fund grants	£750.00	£1,480.00	£130.00
Website design and maintenance	-	-	-
Diagram production (Bulman Fund)	-	-	-
Subscription to M&G Charifund	-	£5,000.00	£3,000.00
	£39,453.91	**£34,074.60**	**£32,168.95**

Liabilities arising in 2013 and falling due in 2014	
Striking of Palaeontographical Society Medal	£3,661.21
Production of Vol 167, estimate	£40,000.00

		2013	2012	2011
Balance C/F (from last account)		£85,913.58	£91,109.18	£89,250.64
Income (from above)		£33,764.61	£28,879.00	£34,027.49
		£119,678.19	**£119,988.18**	**£123,278.13**
Expenditure (from above)		£39,453.91	£34,074.60	£32,168.95
Balances on 31/12:	Current	£14,944.21	£21,201.44	£22,519.92
	Deposit	£64,655.46	£64,568.81	£64,439.48
	PayPal	£624.61	£143.33	£4,149.78
		£119,678.19	**£119,988.18**	**£123,278.13**
Income over expenditure		**-£5,689.30**	**-£5,195.60**	**£1,858.54**
Adjusted balance C/F to following year[4]		**£36,563.07**	**£51,245.29**	**£66,032.36**

Schedule of Investments and Income for 2013

	Cost (£)	Market Value (£)	2013 Income (£)
Wide Range			
8261 units M&G Charifund[5]	£62,645.78	£118,889.01	£5,303.64
2565 units M&G Fund of Investment	£1,187.70	£41,091.30	£276.74
868 Shires Income plc, 50p ordinary shares	£910.51	£2,085.37	£78.12
5920 Securities Trust of Scotland plc ordinary shares, 25p	£655.27	£8,598.80	£213.12
	£65,399.26	£170,664.48	£5,871.62
SR Units			
3126.21 COIF Charity, Invest Inc	£20,061.55	£36,342.50	£1,680.02
Total Investments	£85,460.81	£207,006.98	
Total Income from Investments			£7,551.64
Deposit Accounts Interest			£86.65
Total from Interest and Investments			£7,638.29
Income from Bulman Fund (extracted from above account)			
719.69 units M&G Charifund	£7,807.77	£10,357.49	£462.05
639 units M&G Charifund	748.91	£9,196.23	£410.24
	£8,556.68	£19,553.72	£872.29

I have examined the above account, have compared it with the vouchers, books and records presented to me, and find it to be correct.

Dr S.G. Molyneux, Examiner, 04/04/2013

Notes to Accounts

1. Subscriptions are accounted for in the year in which they are credited to the current account.
2. NHM bookshop payments during the year totalled £1740 (in 2012: £1035: in 2011: £945; in 2010: £2730)
3. Annual report figure includes annual report printing, membership form printing, and newsletter printing.
4. Adjusted Balance represents actual amount carried forward in current and deposit accounts (on 31/12/2013) minus liabilities due on this figure.
5. M&G Charifund units include 1106 units purchased 20/01/2004 for £12 000, 817 units purchased 30/08/2006 for £12 000, 717 units purchased 03/02/2010 for £7500, 1752 units purchased 16/04/2010 for £20 000, 257 units purchased 05/05/2011 for £3000 and 413 units purchased 31/12/2012 for £5000.

Independent Examiner's report to the Trustees of the Palaeontographical Society

This is the report on the accounts of the Palaeontographical Society for the year ending 31st December 2013.

Respective responsibilities of trustees and examiner

The charity's trustees are responsible for the preparation of the accounts. The charity's trustees consider that an audit is not required for this year (under section 43(2) of the Charities Act 1993 (the 1993 Act)) and that an independent examination is needed.

It is my responsibility to:

i. examine the accounts (under section 43(3)(a) of the 1993 Act);

ii. follow procedures laid down in the General Directions given by the Charity Commissioners (under section 43(7)(b) of the 1993 Act); and

iii. state whether particular matters have come to my attention.

Basis of independent examiner's report

My examination was carried out in accordance with the General Directions given by the Charity Commissioners. The examination included a review of the accounting records kept by the charity and a comparison of the accounts presented with those records. It also included consideration of any unusual items of disclosures in the accounts for which explanations might be sought from you as trustees. The procedures undertaken do not provide all the evidence that would be required in an audit and consequently I do not express an audit opinion on the view given by the accounts.

Independent examiner's statement

I have examined the Society's accounts, and from the books and records presented to me, no matter has come to my attention:

1.) which gives me reasonable cause to believe that in any material respect the requirements

   i. to keep accounting records in accordance with section 41 of the 1993 Act; and

   ii. to prepare accounts which accord with the accounting records and comply with the accounting requirements of the 1993 Act

   have not been met; OR

2.) to which, in my opinion, attention should be drawn in order to enable a proper understanding of the accounts to be reached.

Name: Dr Stewart G. Molyneux

Address: British Geological Survey, Keyworth, Nottingham NG12 5GG, U.K.

Date: 04/04/2014