Notice of Annual General Meeting and Annual Address

The 172nd Annual General Meeting will be held in the Flett Lecture Theatre of the Natural History Museum, London, SW7 5BD, on Wednesday, 24th April, 2019, at 4.00 pm. The Annual Report of Council will be presented, along with Income and Expenditure Accounts for the year ended 31st December, 2018, 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 Thirteenth Annual Lecture, to be given by Dr Paul Taylor (The Natural History Museum, London). The event will be held in the Flett Lecture Theatre 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.

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NEWSLETTER 35

1. Publications: Volume 172 (part 650) was published in November 2018.

Vol. 172, 2018

650. Ichthyosaurs of the British Middle and Upper Jurassic. Part 2, Brachypterygius, Nannopterygius, Macropterygius and Taxa invalida, by B.C. Moon A.M. & Kirton (pp. 85-176, plates 31-40).

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 2019 were considered due on 1st January, 2019, and will entitle subscribers to Volume 173. Individual subscriptions are £35.00. The Student rate remains at half the individual rate, £17.50. There is a surcharge of £1.50 when subscriptions are paid through PayPal.

The Palaeontographical Society no longer offer Institutional or Agency rates. Institutions will now subscribe through Taylor & Francis at https://www.taylorandfrancis-renewals.informa.com/info.html.

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 2019 (Volume 173) is enclosed with this Newsletter. 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 2018 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 (Dr Tim McCormick). His e-mail address is tmcm@bgs.ac.uk.

3. The Society’s Web Site (www.palaeosoc.org) continues to be an effective tool for posting new information on the Society (including Members of Council, progress reports for Palaeontographical Society Research Grants and other announcements). The Society is also now on Facebook and can be found through the Palaeontographical Society website.

The Palaeontographical Society’s online shop has now been closed. The monographs of the Palaeontographical Society can be located and brought from Taylor and Francis via a portal via on our website (see also Point 9).

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 our website or contact the Secretary (Dr Nigel R. Ainsworth at nigelainsworth@btinternet.com) for further information. The next closing date for applications is 28th February, 2019, and the successful applicant(s) will be announced at the AGM. Three grants were awarded in 2018:

Ms M. Johnson (University of Edinburgh). Jurassic Telosauroida.

Ms E. Martin-Silverstone (University of Bristol). Pterosaur remains from the Middle Jurassic of Skye, Scotland.

Mr T. Raven (Natural History Museum, London). British Jurassic and Cretaceous Thyreophora.

Reports on two of the projects appear below.

5. The Edward Forbes Prize: The Society invites applications for the Edward Forbes Prize, which aims to recognize 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. The Edward Forbes Prize was not awarded in 2018.

We invite submissions for the 2019 award on the basis of any eligible article that was published in 2018. Applications should be addressed to the Secretary (nigelainsworth@btinternet.com) and must be received by the closing date of 28th February, 2019. 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 an award, the Palaeontographical Society Medal, which is intended to recognize a sustained and important series of contributions to taxonomic and systematic palaeontology. It is presented once in any two year period. In particular, the Society seeks to honour those who have made an exceptional contribution to the micropalaeontology, palaeobotany, 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 third award was made at the Annual General Meeting in April 2018 to Dr Robert M. Owens (National Museum of Wales, Cardiff).

It is anticipated that the fourth Palaeontographical Society Medal will be awarded in April 2020. The Council of the Society welcomes nominations and suggestions for future recipients of the Medal. Please contact the Secretary (nigelainsworth@btinternet.com).

7. Society Archives: Members of the Society wishing to view the archives of the Palaeontographical Society should write to the Secretary (nigelainsworth@btinternet.com).

8. Annual Address: The subject of the Thirteenth Annual Address is “From Mr Busk to Mr Bayes: breathing life into fossil bryozoans”. This year’s speaker is the Dr Paul D. Taylor of The Natural History Museum, London.

George Busk’s monograph, *The Fossil Polyzoa of the Crag*, was issued by the Palaeontographical Society in 1859, a year famous for the publication of *The Origin of Species* by his friend Charles Darwin. And, coincidentally, Darwin’s first scientific paper had also been on polyzoans, or bryozoans as they these colonial invertebrates are now known. In the 160 years since Busk’s monograph, only one other Palaeontographical Society monograph devoted entirely to bryozoans has been published. But don’t be misled into thinking that bryozoans are a minor phylum of little palaeontological interest. As I aim to show in this talk, nothing could be further from the truth. Bryozoans are varied and intriguing animals. Scanning electron microscopy and molecular phylogenetics have driven progress in bryozoan taxonomy during recent years. This in turn has facilitated advances in our understanding of bryozoan palaeobiology and macroevolution. Although bryozoans too often ‘fly beneath the radar’ of palaeontologists and media alike, they offer great potential for research into a diverse range of subjects, for example, competition through geological time, and how the key traits of colonial animals, such as polymorphism, have evolved.

9. Change to the Publication of the Monographs: The Palaeontographical Society has self-published the monograph series since its inception, but in order to broaden their distribution and to ensure the continued financial health of the Society, the Society entered into a new partnership with Taylor & Francis, commencing in 2018. Taylor & Francis will print and distribute the monographs, but the Society will retain copyright and editorial control over content. The resulting product will look essentially the same, but will also be available in PDF format, as well as print. Members will receive a print copy by default and access to the monographs via Taylor & Francis’ online platform. In addition, we will be increasing the numbers of issues from two to three each calendar year. An earlier agreement regarding the reprinting of out-of-print monographs, which was conducted in conjunction with Cambridge University Press, has been terminated.

Monographs of the Palaeontographical Society are located on the Taylor & Francis website at http://www.tandfonline.com/toc/tmps20/current.

10. Meetings: The Lyell Meeting will be held in the Meeting Room of the Geological Society (Burlington House) on Wednesday, 28th June, 2019. This year’s Lyell Meeting is being convened by Dr Barry Lomax (University of Nottingham) and Dr Wesley T Fraser (Oxford Brooks University), and is entitled: “Carbon: geochemical and palaeobiological perspectives”. Note that entrance to the Lyell Meeting is no longer free to members of the Palaeontographical Society, but a reduced rate applies.

11. Nominations for Council: The Palaeontographical Society is open for nominations to serve on Council for 2019–2022. 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 the needs of the membership. Any member of the Society can nominate a candidate and names will be considered at the AGM. Members can nominate a candidate by sending an e-mail to the Secretary (nigelainsworth@btinternet.com) together with a statement from the candidate that he/she is willing to be considered. A proposer and seconder are required, who must be current members of the Society.

12. New members: We extend a warm welcome to the following recent new members of the Society: Caroline Buttlar; Alexander Liu; Elsa Panciroli; Tom Raven; Alain Vadet and Patrick Wyse Jackson.
Thalattosuchia was an extraordinary group of marine crocodylomorphs that flourished within the Mesozoic Era. These marine giants evolved multiple feeding specializations and environmental adaptations (Young et al. 2014) throughout their long and illustrious history. One of the two major thalattosuchian groups is Teleosauroidea, a group of generally long-snouted, medium-sized crocodylomorphs which have been historically dismissed as simply a group of Jurassic marine ‘gavials’. However, teleosauroids attained a near-global distribution, were diverse morphofunctionally as well as in body size and frequented shallow marine/brackish/freshwater ecosystems throughout the Jurassic (Eudes-Deslongchamps 1867-69; Andrews 1913; Buffetaut 1982; Young et al. 2014). Despite increased anatomical research over the past ten years (e.g., Young et al. 2014), the evolutionary relationships within Teleosauroidea are still poorly understood and little studied. One particular problem within teleosauroid taxonomy is the waste-basket genus ‘Steneosaurus’, whose validity has recently been called in question. The main objective of my PhD is to create a phylogenetic analysis of Teleosauroidea. During my first year, I visited approximately 25 museums in 12 countries, and assembled morphological information from over 520 teleosaurid specimens. These included well-known taxa (such as ‘Steneosaurus’ edwardsi, e.g. NHMUK PV R 3701, and Machimosaurus) as well as little studied, enigmatic taxa (such as multiple skulls from Eastern Asia). In addition, I will establish what taxa pertain to ‘Steneosaurus’, thereby re-establishing teleosauroid taxonomy. Currently, my phylogenetic analysis of Crocodylomorpha (which I am now writing in manuscript form) includes 150 taxa (including twenty-six teleosaurids) and 502 characters, with two subgroups within Teleosauroidea being consistently recovered.

Teleosauroids were a critical fauna of the British Jurassic period and were extremely common and diverse throughout the continent. For my PhD project, it was essential to examine key specimens in the Natural History Museum (NHM) in London (UK). The NHM has one of the finest and most comprehensive collections of teleosaurid material in the entire world, and encompasses multiple holotypes, complete specimens and undescribed material. In 2016, I visited the NHM to examine many specimens of the more well-known teleosaurids, including the machimosaurin (e.g. Steneosaurus leedsi, Lemmysuchus obtusidens). However, there is a particular grouping of teleosaurids, housed mainly at the NHM, that remain anatomically distinct and phylogenetically puzzling. These include an array of bizarre, long-snouted forms (that are closely related to East Asian taxa) and an extremely rare taxon from Madagascar. The Richard Owen Research Fund enabled me to make this additional trip to the NHM to examine, measure and compare these critical and unique specimens. These include: Mystriosaurus nasutus, an enigmatic and poorly known teleosaurid that is invaluable in understanding the evolutionary relationships between the poorly-studied ‘long-snouted’ group of teleosaurids; Aeolodon priscus, a more pelagic ecomorotype; Steneosaurus baroni, a poorly preserved specimen from Madagascar and the only teleosaurid known from the area; and ‘Steneosaurus’ brevior, a mesorostrine form, which colleagues and I have re-described (Sachs et al. in review).

I thank the Palaeontographical Society for awarding me with the Richard Owen Research Fund to help with my project. I would also like to thank Susie Maidment (NHM) for her help and assistance during my visit.

REFERENCES


Description of the first associated pterosaur remains from the Middle Jurassic of Scotland

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Pterosaurs have a long, rich history of discovery within the UK, with the first British pterosaur specimens found by Mary Anning in the 1800s. This includes the Early Jurassic non-pterodactyloid Dimorphodon macronyx, which currently represents the only relatively complete, articulated pterosaur found in the UK. Unfortunately, most British material comes from isolated, and fragmentary bones, mainly from the Middle Jurassic Oxford Clay Formation and Early Cretaceous Wealden Supergroup and Cambridge Greensand (Barrett et al. 2008; O’Sullivan 2018). The Middle Jurassic UK pterosaur record is particularly poor, with most of the material being so fragmentary that it is unidentifiable and taxonomically problematic (Unwin 1996; O’Sullivan 2018). This time period is particularly important in pterosaur evolution, as this was when they were changing from the more basal non-pterodactyloids to the derived pterodactyloids, through the transitional wukongopterids found both in China and the UK (Lü et al 2009; Witton et al. 2015).

In 2006, an expedition to the Middle Jurassic (Bathonian) Kilmaluag Formation near Elgol on the Isle of Skye, Scotland, recovered a number of vertebrate fossils, including the partial skeleton of a pterosaur, which has previously been unstudied until now. This pterosaur represents the first significant pterosaur remains found in Scotland, making it a key specimen to understanding the Jurassic ecosystem of Scotland. The main goals of this project are to describe the specimen and determine its importance in pterosaur evolution. To do this, I was able to have the specimen on loan for 6 months at the University of Bristol. The specimen is preserved in a number of small blocks, three main ones, with the bones being relatively undistorted and three dimensional. The skeleton is somewhat disarticulated, though material is often found associated, and in some cases (the unfused scapulocoracoid), articulated.

On the surface, a number of bones can be identified, including several wing phalanges, a partial wing metacarpal, and several fragments. I have also been able to CT scan the specimen, which has revealed more material within the blocks, including several vertebrae, a partial sternum, some synarcaps, a partial femur, and a complete wing metacarpal. I’ve identified the complete and articulated scapula and coracoid, which are preserved on the surface, but obscured. These appear not to be fused (though the articulation is obscured on the surface and the CT scans are difficult to interpret in this region), indicating this animal may not have been fully mature. The presence of fused synarcaps, but unfused scapula and coracoid, would indicate the specimen is near ontogenetic stage 3 or 4 (Kellner 2015). Unfortunately, no cranial material has been found to date.

At this time, the pterosaur is still under study, with more material being identified and the significance being made clearer. The next step in this project, once all of the material has been identified and the anatomy better understood, is to undertake a phylogenetic analysis to determine where this pterosaur fits in the pterosaur tree. This is necessary to fully understand how important this specimen is in the scheme of pterosaur evolution as a whole.

REFERENCES

CATALOGUE OF MONOGRAPHS
PUBLISHED OR COMPLETED SINCE 2011

Volume 172 (for 2018) published November 2018


Volume 171 (for 2017) published November 2017 (£280.00):


Volume 170 (for 2016) published November 2016 (£280.00):

646. Smith, A.B. British Jurassic regular echinoids, Part 2, Carinacea. 69-176, pls. 42-82, final part. £130.00.

647. Moon, B.J. & Kirton, A.M. Ichthyosaurs of the British Middle and Upper Jurassic, Part 1, Ophthalmosaurus. 1-84, pls. 1-30. £150.00.

Volume 169 (for 2015) published November 2015 (£260.00):


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


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

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


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


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


PALAEONTOGRAPHICAL SOCIETY
Established 1847
Registered Charity No. 228372

ANNUAL REPORT FOR 2017–2018

Volume 171 for 2017 appeared in November.

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, 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 (tcmm@bgs.ac.uk).

Many monographs are not now available in original print. Taylor & Francis are creating a full digital archive of the Monographs, with a number now available via their 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.

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 Nigel R. Ainsworth, 39 De Tany Court, St. Albans, Hertfordshire AL1 1TU, U.K.

January 2019
REPORT OF THE COUNCIL
for the year ended 31st December 2017

Read and adopted at the 171st Annual General Meeting held in the Flett Lecture Theatre of the Natural History Museum, London, on the afternoon of 18th April 2018, Professor Paul M. Barrett, The President, in the Chair.

Volume 171 (for 2017) was published in November 2017.

Vol. 171, 2017 (£280.00)
648. *The Ammonoidea of the Lower Chalk, Part 7*, by C.W. Wright & J. Kennedy (pp. 461-461, with Title page, Contents and Index, Part 7. £175.00).

649. *The Early Jurassic Bivalvia from the Hettangian and Lower Sinemurian of south-west Britain, Part 2*, by P. Hodges (pp. 65-111, plates 7-10. £105.00).

Two Richard Owen Research Fund awards were made in 2017, to Claire Dobson (University of Oxford) to study the computer tomography of stem teleosts, and Fiona E. Fearnhead (The Natural History Museum, London) on the Devonian crinoids from the Plymouth area. The Edward Forbes Prize was not awarded in 2017.

The Society provided support for the Lyell Meeting, entitled “Sticking Together – microbes and their role in forming sediments”, at Burlington House in March.

During the year, £5629.80 was received from the sales of back-stock held by the Society.

The balance shown in the Statement of Accounts stands at £68,000.78. The Income and Expenditure Account for 2017 is annexed.

At the Annual General Meeting, held on Wednesday, 19th April, 2017, Dr B.M. Cox retired as Vice-President, and Professor S.K. Donovan retired as Secretary, and Dr F.E. Fearnhead and Mr D.J. Ward retired as Members of Council. Professor S.K. Donovan was elected as a new Vice-President, while Dr N.R. Ainsworth was elected as the new Secretary. Professor J. Clack, Dr B. Moon and Mr S. Wills were elected as new Members of Council. Professor P.M. Barrett was re-elected as President. Professor J. Francis was re-elected as Vice-President. Drs Y. Candela and P. Crowther were re-elected as Editors. Dr T. McCormick was re-elected as Treasurer. Dr A Butcher was re-elected as Web Manager, and Ms E. Bernard was re-elected as Marketing Manager.

COUNCIL 2018–2019

Following the Annual General Meeting, held on Wednesday, 18th April 2018, Professor P.M. Barrett retired as President. Professor S.K. Donovan retired as Vice-President, and was elected as the new President. Professor P.N. Wyse Jackson was elected as a new Vice-President. Dr N.R. Ainsworth was re-elected as Secretary. Professor J. Francis was re-elected as Vice President, Dr T. McCormick was re-elected as Treasurer, Drs Y. Candela and P.R. Crowther were re-elected as Editors, Dr A. Butcher was re-elected as Web Manager, while Ms E. Bernard was re-elected as Publicity Officer. Dr J.P. Botting retired from Council. Ms E. Panciroli was elected as new member of Council.

President
Professor S.K. Donovan

Vice-Presidents
Professor J. Francis and Professor P.N. Wyse Jackson

Treasurer
Dr T. McCormick

Secretary
Dr N.R. Ainsworth

Editors
Dr Y. Candela and Dr P.R. Crowther

Publicity Officer
Ms E. Bernard

Web Officer
Dr A. Butcher

Other Members
Professor J. Clack, Dr L. McCobb, Dr B. Moon, Ms E. Panciroli, Dr R. Sansom and Mr S. Wills