



Newsletter No. 263

October 2020

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Committee

Chairman

Graham Worton

Vice Chairman

Andrew Harrison

Hon Treasurer

Alan Clewlow

Hon Secretary

Position vacant

Field Secretary

Andrew Harrison

Meetings Secretary

Keith Elder

Newsletter Editor

Julie Schroder

Social Media

Peter Purewal

Robyn Amos

Webmaster

John Schroder

Other Member

Bob Bucki

To find out more about this photo - read on!



Copy date for the
next Newsletter is
Tuesday 1 December

<p>Position vacant Honorary Secretary,</p> <p>secretary@bcgs.info</p>	<p>Andy Harrison, Field Secretary,</p> <p>☎ 07973 330706</p> <p>fieldsecretary@bcgs.info</p>	<p>Julie Schroder, Newsletter Editor,</p> <p>42 Billesley Lane, Moseley, Birmingham, B13 9QS.</p> <p>☎ 0121 449 2407</p> <p>newsletter@bcgs.info</p>
<p>For enquiries about field and geoconservation meetings please contact the Field Secretary. To submit items for the Newsletter please contact the Newsletter Editor. For all other business and enquiries please contact the Honorary Secretary. For further information see our website: bcgs.info, Twitter: @BCGeoSoc and Facebook.</p>		

Future Programme

Indoor meetings are normally held in the Abbey Room at the Dudley Archives, Tipton Road, Dudley, DY1 4SQ, 7.30 for 8.00 o'clock start unless stated otherwise. The same timing applies to the current programme of online 'Zoom' meetings.

Visitors are welcome to attend BCGS events.

Monday 19 October (Zoom Meeting): 'The Bob King Mineral Collection'. Speaker: Tom Cotterell, currently furloughed Senior Curator, Mineralogy, National Museum of Wales.

The Bob King Mineral collection, now held at the National Museum of Wales represents one of the finest British mineral collections assembled during the Twentieth Century.

Covid-19 arrangements for Indoor Talks

Due to the current ever-changing Covid-19 situation it has been decided that all indoor meetings will take place virtually for the foreseeable future. This will be re-assessed in the light of developments. We and many other societies are using 'Zoom' for our meetings. Our Meetings Secretary, Keith Elder, will send emails to BCGS members enabling registration for our meetings. This will be in advance of a more general invitation to be sent to other societies. As there is a limit of 100 for our Zoom meetings you are advised to book early to be sure of a place. Julie Schroder, Newsletter Editor, will forward invitations to BCGS members for joining meetings that other societies are holding, to which we are invited.

Please contact the Meetings Secretary for further information.

Keith Elder,
☎ 07477075899

BCGS Meeting Secretary
keith.elder@hotmail.co.uk

Monday 16 November (Zoom Meeting): 'Saltwells and Wren's Nest - Dudley's SSSIs for Geology'. Speakers: Alan Preece (Saltwells Warden) and Ian Beech, (Wren's Nest Warden). Details TBC.

Monday 14 December (Christmas Zoom Meeting): Talk by a young geologist (*postponed from 16 March*): 'Phytoplankton and the response of ocean ecosystems to ancient and future climate change'. Speaker: Matt Sutton, (University of Oxford).

Monday 18 January (Indoor Meeting): 'Geology in Paradise'. Speaker: Graham Hickman.

Other Societies and Events

Covid-19 arrangements

Some societies have cancelled their meetings for the foreseeable future. Many are running virtual on-line meetings. Below is a list of the societies whose events we normally promote in this Newsletter. Please check websites for further information.

Warwickshire Geological Conservation Group

Wednesday 14 October: 'Fifty years of plate tectonics: past, current and future'. Speaker: Marco Maffione.

Wednesday 21 October: 'From Coprolites to Cholera, the life of William Buckland'. Speaker: Peter Lincoln. Followed by WGCG AGM.

WGCG Geology Free Talks: Wednesdays 7.30 via Zoom. For more details visit: <http://www.wgcg.co.uk/> or email: warwickshiregcg@gmail.com.

North Staffordshire Group of the Geologists' Association

Thursday 12 November: 20th Wolverson Cope Lecture: 'Exceptional fossil preservation in the Welsh Basin'. Speakers: Dr Joe Botting and Dr Lucy Muir (Llandrindod Wells).

Meetings are held at 7.30. Due to coronavirus restrictions lectures will held online via Zoom until at least 2021. For enquiries: Steve Alcock, Longfields, Park Lane, Cheddleton, Leek, Staffs, ST13 7JS. Tel: 01538 360431. Email: steves261@aol.com More info: <https://nsgga.org/>

Geological Society, West Midlands Regional Group

Tuesday 13 October: 'Understanding the Triassic and Jurassic Geology at Hinkley Point C'. Gemma Sherwood (EDF Energy).

Meetings are by Zoom Video Conference at 6.30. For further details please contact the Group Secretary at: geolsoc_wmrg@live.co.uk Click [here](#) for website.

Shropshire Geological Society

Wednesday 14 October: 'The Jurassic Earth System and Timescale (JET) Project'. Speaker: Robert Newton, University of Leeds. Includes the 800m deep borehole at Prees in NE Shropshire.

Wednesday 11 November: 'Understanding Active Tectonics and Earth Surface Processes using Luminescence'. Speaker: Ed Rhodes, University of Sheffield.

Wednesday 9 December: 'Carrying out marine geology at sea - the role of technology in discovery'. Speaker: Neil Mitchell, University of Manchester.

Lectures are being held using Zoom and commence at 7.00 for 7.30. Further info: <http://www.shropshiregeology.org.uk/SGS/SGSEvents.htm>

Manchester Geological Association

Wednesday 14 October: The John Price Memorial Lecture: 'Archaeopteryx and the dinosaur-bird transition'. Speaker: Dr John Nudds, University of Manchester.

Wednesday 11 November: The Broadhurst Lectures: Lecture 1 - 'South Italian Volcanics'. Speaker: Professor Mike Burton, University of Manchester.

Wednesday 2 December: The Broadhurst Lectures: Lecture 2 - 'East African Rift Volcanism'. Speaker: Dr Céline Vidal, University of Cambridge.

All Zoom meetings will start at 7.00 with a login time from 6.30. For further information about meetings: <http://www.mangeolassoc.org.uk/> Visitors are always welcome.

Oxford University Museum of Natural History

The Museum has a YouTube channel: <https://www.youtube.com/user/oumnhvideos/videos> e.g. there is a recent talk by Director Paul Smith: 'The Cambrian explosion and the evolutionary origin of animals'.

Wednesday 21 October: 'How do many-eyed animals see the world?'. Speaker: Dr Lauren Sumner-Rooney, Research Fellow at the OUMNH studying the function and evolution of animal visual systems.

These are free online talks starting at 7.00. More information from their website: <https://www.oumnh.ox.ac.uk/> Booking necessary.

The Geologists' Association - Geology from your Sofa

The Geologists' Association may not be able to invite you to attend lectures and field trips at the moment, but they are looking at ways for you still to enjoy geology, virtually through online courses, field trips and talks.

See the website for further details: <https://geologistsassociation.org.uk/sofageology/>

The Geologists' Association Festival of Geology Saturday 7 & Sunday 8 November

The GA Festival of Geology will be held virtually this year. This will have the advantage that their more remote members and groups will be able to participate:

- Virtual presentations by our Local Groups & Affiliated Societies.
- Virtual lectures from guest speakers
- Virtual activities for children
- Virtual sales of rocks & fossils
- Virtual stands for traders.
- Virtual meeting space
- Photographic competition display

See the website for the full schedule and further details: <https://geologistsassociation.org.uk/festival/>

Mid Wales Geology Club: <http://midwalesgeology.org.uk/>

Teme Valley Geological Society: <http://www.geo-village.eu/>

Woolhope Naturalists' Field Club - Geology Section <https://www.woolhopeclub.org.uk/meetings>

East Midlands Geological Society: <http://www.emgs.org.uk/>

Lapworth Lectures: <http://www.birmingham.ac.uk/facilities/lapworth-museum/events/lectures.aspx>

Abberley & Malvern Hills Geopark: <http://geopark.org.uk/>

Herefordshire & Worcestershire Earth Heritage Trust: <https://www.earthheritagetrust.org/>

Editorial

With the dark cloud of Covid still hanging over us all, the BCGS committee has been working behind the scenes to make sure that we can keep functioning as a Society. Our first on-line 'Zoom' meeting took place on 21 September, thanks to the efforts of our meetings secretary, Keith Elder. Assisted by Ray Pratt at the event, it all went smoothly with a good turn out (or should I say 'audience'). We hope you all found your way around the technology. Please remember to contact Keith if you have any problems (contact details in the special Covid-19 box on p.2).

'Zoom' meetings have the advantage of enabling our more distant and less mobile members to join us, and also makes it easier to share our talks with other geological society members. We are doing this on a reciprocal basis and we have an arrangement with some societies to send and receive login details for on-line talks. When we receive these we will send them on to you. You can also find details of the activities of other societies in the listings above.

The meeting started with the postponed AGM. There is a brief report at the end of this Editorial. This was followed by Lucy Clarke's fascinating talk on glacial change, highlighting her work in the Antarctic.

You will note from the AGM report below (and the separate box, p.7) that there is a vacancy for the position of Honorary Secretary on the Committee. The Committee (and therefore the Society) can't function without a secretary, so we do urge you all to have a think about whether you could spare a little time for this. If so, please contact the committee using this address: secretary@bcgs.info ►

In this Issue we bring you another 'good read' in Mike's latest 'Musing', and as one of the key players in the on-going 'Building Birmingham' project, I bring you a long overdue up-date.

Our Poet in Residence, R.M. Francis has been busy and there are a number of on-line events for us to join. There are lots of weblinks so have a look - and dare to dip your toes into the world of geopoetry! This is a new dimension for most of us - but what better time than now to broaden our horizons from the comfort of our homes.

Our newest member, David Manning, has given us a short profile of himself by way of an introduction – given that we are all unable to meet face to face at the moment. This got me thinking that this could lead the way for a series of short items like this to keep us all in touch while we're unable to meet. Whether you're a newish member, or have been in the Society for a long time, why not take up the mantle from David and give us a snapshot of your geological world?

Our final item (p.14) is a notice of an appeal which may interest some of you. This is a plea for help from the Etches Collection in Dorset. Many of you will remember our very enjoyable and instructive visit in September last year, when Steve Etches himself showed us round the collection. ■

Julie Schroder

Annual General Meeting Report

The 2020 AGM was held on-line on Monday 21 September, postponed from 16 March due to Covid-19. The Chairman's Report and Audited Accounts had been prepared for the March meeting, and were circulated either electronically or as hard copies to all members. Summaries of these plus the status of the committee were included in the April Newsletter, (Issue 260). The Chairman's report and the Accounts were circulated again prior to the on-line meeting, plus Minutes of the 2019 AGM.

The Chairman, Graham Worton, summarised his earlier report, adding the good news that the Black Country UNESCO Global Geopark was officially ratified in July.

Election of Officers:

The Chairman reported that the Honorary Secretary, Robyn Amos had resigned as Secretary but would remain on the Committee. Chris Broughton had resigned from the Committee, and the Chairman thanked both for their services to the Society. The following members of the Committee had offered themselves for re-election and were re-elected at the meeting as follows:

Chairman: Graham Worton

Treasurer: Alan Clewlow

Hon Secretary: Position Vacant

Vice Chairman and Field & Geoconservation Meetings Secretary: Andy Harrison

Meetings Secretary: Keith Elder

Newsletter Editor: Julie Schroder

Webmaster: John Schroder

Social Media: Peter Purewal, Robyn Amos

Other member: Bob Bucki

Davena Dyball to be asked to audit the accounts (*subsequently confirmed. Ed.*) ■

Julie Schroder

BCGS Committee - vacancy for Honorary Secretary

The Committee meets about 4 times a year to discuss all matters concerning the Society, but particularly to forge together our programme of events. The Society can only thrive with the efforts put in by the Committee behind the scenes, and we are always looking for new ideas.

Currently there is a vacancy for the post of Honorary Secretary, and we urgently need someone to fill this post. If you are interested, or would like more information about the work that this entails please don't be shy to put your name forward!

Please use the email address secretary@bcgs.info if you are interested.

Hello from a new BCGS member



Figure 1

Just before our first Society on-line meeting, we had the pleasure of welcoming a new member, David Manning. With no foreseeable opportunities for us to welcome David personally, I thought it would be nice if he could introduce himself with a little item for the Newsletter. We hope, David, that it won't be long before our activities can resume, so that you can share your enthusiasm and become more fully involved. Ed.

Hi! My name is David Manning, I am 56 and live in Great Barr. I have been interested in history, astronomy and natural history most of my life - you could say geology is a natural add on to that! However, my interest in geology only really developed in the last 5 years or so, after I began to collect rocks from places we went to on holiday/days out, and trying to find out about them. I have a small and growing collection - which is in danger of breaking the wooden floor in the shed! I was very excited when the Black Country Geopark bid succeeded. I am really looking forward to being a member of the BCGS.



Figure 2

Figure 2. Precambrian rock from Malvern hills - the first rock I collected - I can never cease to be amazed that I can hold in my hand something so ancient!



Figure 3

Figure 3. Just a boring pebble? - a large quartzite pebble from Barr Beacon that was, I believe, transported from northern France in the Triassic period - astonishing forces of nature that can do such things! Definitely not boring! ■

David Manning

'Building Birmingham' Trails

Up-date and a Covid-19 regulated walk

Background and progress report

It is almost 4 years since I first introduced the subject of a series of three building stones trails for Birmingham which were at the time in the process of development. They were created by Ruth Siddall from University College London for BCGS, and intended for our Society to develop, maintain and promote to the public. The background to the project was reported in Newsletter 240, (December 2016), with a progress report in Newsletter 241 (February 2017). By that time all 3 trails were completed in their pdf format, and were in the process of development in a web-based format with the headings 'Building Birmingham': Trail 1 - The Town Hall to the Cathedral; Trail 2 - Centenary Square to Brindley Place; Trail 3 - Around the Shops. Help from BCGS members was sought to trail test and provide feedback with corrections and comments, and I announced the next stage of the project: to create three shortened and simplified trails with the intention of producing printed trail leaflets for the general public.



A draft leaflet was produced for submission to the GA's Curry Fund along with a grant application for funds to produce 1000 copies of each of the 3 proposed leaflets. The photo on the left shows the original front cover photo - the Town Hall with a highlighted example of a colonial coral (*Syringopora* sp). Our application was approved with the proviso that the work should be completed within 2 years. I reported this in my Editorial in Newsletter 245 (October 2017), and work started in earnest with a view to completing - and launching - the trail leaflets by Spring 2018.

With hindsight, that was a vain hope! We had not bargained for the extent and timescale of the re-development of Birmingham city centre. Throughout 2018, 2019 and early 2020 things just went from bad to worse from our point of view. The fountain and memorial in Chamberlain Square were already under wraps during the initial field work with Ruth early in 2016, and to date it is still fenced off! (*See photo on p.10.*)

Parts of Trail 3 around the High Street were under wraps for many months, with some of the interesting natural stone façades ripped off in favour of man made materials. In Trail 2, Brindley Place had already been re-developed before the trails were devised, but Centenary Square was ripped apart, and to add insult to injury, work was halted for some time after the collapse of Carillion early in 2018. The square eventually re-opened in July 2019. There was a bonus here though - the previous brickwork was replaced with granite paving, so providing a new addition to this trail. Even the previously 'completed' Trail 1 has seen alteration around Victoria Square with new granite paving, and I gather there is more new paving to come... ►

With the city centre looking like a bomb site in a forest of cranes, it was simply not possible to complete the trails by the deadline of September 2019, so a plea was sent to Jonathan Larwood (Secretary of the GA's Curry Fund) to take pity and give us an extension for a year, and this was granted. Early in 2020 another concerted effort was made to complete the draft trail leaflets - and get some crane-free photos! Then came Covid-19. All building work ceased along with our freedom to roam around and gather information about the new stone-work and take photos. By mid-summer it became clear that there would be no way of completing and launching the trails within the extension time, so another plea to the Curry Fund granted this jinxed project another year's grace.

'Building Birmingham' - the trails in action

This sorry tale has in no way diminished our enthusiasm to complete this project, or to make good use of the trails as available in electronic form. I and others have had the pleasure of leading numerous groups around all three trails over the last few years, and BCGS members have been involved in several of these. Reports by Andy Harrison (Newsletter 249, June 2018) and Ray Pratt (Newsletter 252, December 2018) give a flavour of the trails, with lots of illustrations to tempt you. From day-time and evening walks for local geology societies, to conference field visits, and guided walks for the general public, the trails have been well promoted, and we have learned a lot about how to present the geology and how to manage guiding groups of people round a busy city centre!



*Eyes up to see the Portland Stone pediments on the Council House. Geological Society WM group visit.
Photo by Ray Pratt*

This problem came into the spotlight just a few weeks ago. Representing BCGS, I had been asked several months ago to lead a group on Trail 1 (Town Hall to the Cathedral Square) for Birmingham Heritage Week, and the date was set for 14 September. Covid-19 regulations made a mountain of extra work for the organisers, but it was agreed to go ahead with a maximum of 10 participants. Then came the Government's 'Rule of 6'. Would we be restricted to 4 plus the organiser and me? Perhaps we could run the walk twice? It turned out that the Government regulations, at that moment of time, would permit a maximum of 30 on guided walks!



*'Social distancing' at the Council House.
Heritage Week walk, Sept. 2020*

The walk went ahead with just 7 participants in the end, and it felt good to be back in action in the real world again. With the added complication of social distancing, it was perhaps a relief that there were no more!

The route was changed slightly due to circumstances. The Museum and Art gallery was still closed, so the Devonshire marbles could be given nothing more than a passing mention. But the Chamberlain fountain, now at least visible through the fencing could be seen and described from afar - and it was noted that work was in

progress to give the grimy Chamberlain Memorial a face-lift. By the time we can get up close, it will present a gleaming white beacon to the beauty of Portland Stone and a fitting centre-piece to the new-look Chamberlain Square. ►

Much of the trail focusses on the wonderful Victorian buildings along Colmore Row. But this is where work is in progress to erect Birmingham's much heralded new edifice - No. 103 Colmore Row, destined to be Birmingham's tallest office block, which will be crowned with a restaurant on the top floor. This has caused years of disruption in Colmore Row, and on the occasion of this visit the noise of machinery was deafening. We couldn't miss the wonderful sight of the Frosterley marble at Java Lounge, but then hastened on towards Cathedral Square with its feast of natural stone, and the walk ended with the spectacular façade of Portland Roach Stone at the corner of Temple Row and Needless Alley.



Chamberlain Memorial before cleaning

The challenges of this walk were nothing compared with the trials and tribulations of our efforts to get the leaflets finished. In due course I shall be asking for the help of BCGS members once again, to trail-test, comment and proof read. We must just keep hoping that circumstances will at last open the way for the completion of this long delayed project next year. ■

Julie Schroder

Mike's Musings No. 29: Flights of Fancy (part 1)

I'm no ornithologist, and certainly not a 'twitcher'. Indeed, I have a profound dislike of the avian world whenever they besmear the car's bodywork, domestic glazing or certain areas of the garden with liberal contributions from on high - at times in sufficient quantity to start up a Derby phosphate industry to challenge Peru or Chile for the global market! That said, I have to admit that with more time spent observing the world around me in aforementioned garden during Lockdown, I have developed a growing admiration for the amazing abilities possessed by creatures blessed with the power to take to the air.

There is a splendid book by Richard Bach, a retired U.S. fighter pilot, which I first came across indirectly in the guise of an equally splendid L.P. (long-play vinyl record, remember them?) by Neil Diamond, each with the title 'Jonathan Livingstone Seagull'. Both, in their respective ways, convey the sense of freedom or feeling of intense pleasure obtained from doing something special, and in particular doing so with great proficiency: in this case the acrobatics of either test pilot or bird 'on the wing'.

Meanwhile, back in my garden, watching a common blackbird flitting from tree to tree, I couldn't help but wonder just how good it might feel, especially under conditions of Lockdown, to soar through the sky and rise above the commonplace of confinement to the ground below. Then the sight of a dead dragonfly in my conservatory (*see front cover photo*), inspired the thought: 'aren't the wings a thing of delicacy and beauty!' Such, then, was the background to yet another theme upon which to muse: the origins of flight. ►



*Blackbird, photo Cindy Kuiphuis
Wikimedia Commons*

On a broader zoological / geological canvas, no fewer than four separate groups of animal have found a way to conquer the air - excluding *Homo sapiens*, who has done so by clever, but surrogate, means, rather than acquiring the direct physical ability of flight.

The earliest group to do so were the insects. This took place back in the Carboniferous period when atmospheric oxygen levels were considerably higher than today, enabling higher diffusion rates and thereby overall size. The anatomical changes involved continue to be debated, with gills, body wall, legs or some combination of these, being hi-jacked for evolutionary manipulation. Whatever the means, insect flight is powered rather like that of a helicopter: the insect wing rotates to achieve lift and flaps to produce thrust, but all flight control mechanisms are external to the wings themselves, governed more by musculature in the insect 'shoulder'. The well known observation that 'according to all the normal laws of aerodynamics, experts say that the bumble-bee cannot fly' perhaps best sums up our exact understanding of insect flight: experts remain perplexed, but Nature clearly knows what it's doing!

Of course, bumble-bees are not the only insects that can fly, and the insect wing varies almost as much as the various theories of insect flight, from the elegant and slim wing of the damsel fly to the rather stubby, fan-like wing of the earwig. Many insects have two pairs of wings, fore and hind; some fold their wings, and others shield their delicate tracery within protective wing cases (elytra). Through all this variety, there can be little doubt that some insects have perfected the art of flight to perform marvellous feats of manoeuvrability - just think of the bee hovering above each bloom as it searches out the best sources of nectar, and of course the wonderful 'waggle-dance' when it tells its associates where to go for more of the same!



Erasipteron (or Whalleyala) bolsoveri - the original specimen when on display at Creswell Crags Museum in 2012. The horizontal part of the wing is about 8cm long

Many years ago I recall the excitement aroused by the discovery (twice over) of fossilised insect wings miraculously preserved in coal from Bolsover Colliery. *Erasipteron bolsoveri* was first (1976) described as a dragonfly, but has been rechristened *Whalleyala bolsoveri* and reassigned to the griffinflies. With a wingspan of around 15-20cm, you wouldn't want it flapping around in your immediate vicinity, but it is

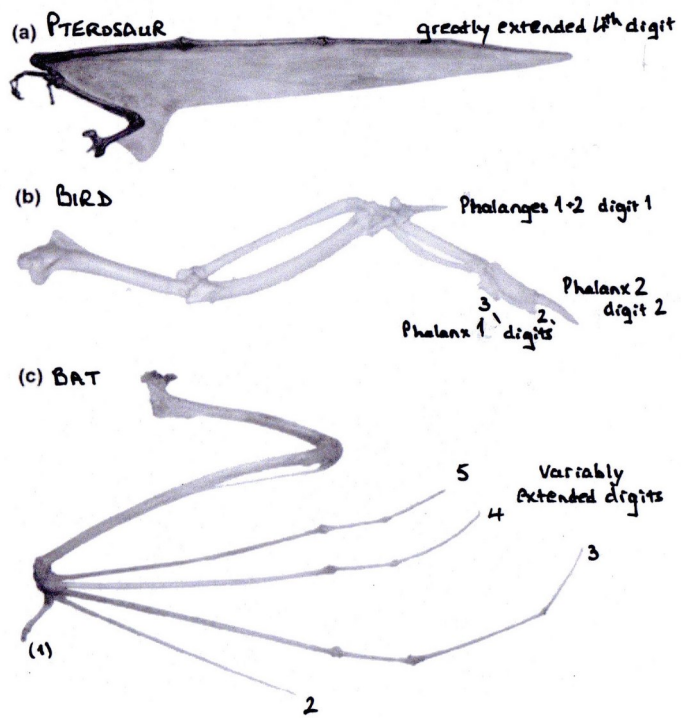


Flying fish shortly after take-off
Wikimedia Commons

small fry compared to the c. 50cm wingspan of *Arctotypus diluculum* (? = *Typhus ailuculum* [sic]), also from Bolsover (1980), and perhaps presenting a whole new meaning to the epithet 'Beast of Bolsover'!

By the mid to late Triassic period another animal group, the reptiles, began experimenting with a different approach to flight. At first this amounted to little more than gliding by means of an outstretched membrane of varied design (which has continued to be a popular means of locomotion within this group, even including snakes (!), as well as other groups such as fish, amphibians, and mammals). This, however, is not seen as true powered flight, but rather a controlled means of falling (unlike man-made 'gliders' which take advantage of 'thermals', there is rarely any height gain with 'gliding' as exercised by the animal kingdom, although some birds certainly do make use of thermals in true flight). ►

By the end of the Triassic period, the development of true wing-membranes, extending from the side of the body to a much elongated 'finger' (analogous to the 4th, or ring, finger in humans) had attained sufficient sophistication as to take on true flight. This was achieved by one group related to the dinosaurs, namely the Pterosaurs ('winged lizards'), themselves quite a varied assortment, with relatively large brains necessary for their more elaborate lifestyle. Early pterosaurs were short-necked, no larger than a seagull and retained the teeth and long tails of their ancestral stock, presenting a heavier, more primitive, appearance. As they diversified during the Jurassic period, their tails shortened, necks lengthened and some developed head crests which may be involved with increased manoeuvrability. Variations in dentition suggest a greater variety of feeding habits and lifestyles. Ultimately, some became positively gigantic in the Cretaceous period, with wingspans well over 10 metres (although dwarf forms which found themselves on isolated islands have also been discovered); they must have been quite ungainly creatures and are likely to have spent most of their lives aloft in much the same way as albatrosses do in today's skies.



COMPARISON OF ANATOMY OF PTEROSAUR, BIRD & BAT WINGS

It isn't entirely clear just how functional their body shapes were whilst grounded. Opinions seem to vary from clumsy to fleet-footed, and perhaps they ranged across a wide spectrum of abilities.



'Pteranodon' at West Midlands Safari Park

Additional questions not yet fully answered include the degree to which they could thermo-regulate. Were they cold-blooded like most reptiles, or were some, at least, warm-blooded? The presence of felt-like downy hair preserved on some fossils supports the latter, increasingly popular, contention. This is similar to the debate concerning some dinosaurs, in which a feathered condition is much better supported in the fossil record. Nor is it entirely clear how they managed to get airborne. It seems most likely that they would have taken off in much the same way as a modern paraglider: an ungainly controlled fall on steep ground (or directly off a cliff top?). Landing might also have been quite a fraught business, but one should bear in mind that most accidents in modern aviation occur at take off or landing!

In the second part we shall consider the two remaining groups of 'fliers': birds and bats. ■

Mike Allen



BCGS Poet in Residence

R.M. Francis

Chain Coral Chorus News

First, a reminder that our Poet in Residence R.M. Francis has produced 3 blogs entitled 'Towards a Black Country Geopoetics'. You can find them here: <https://rmfrancis.weebly.com/chain-coral-chorus/archives/07-2020> and shared through his twitter account: [@RMFrancis](https://twitter.com/RMFrancis)

Since the last issue of the Newsletter there are two more additions:

'Into the Everyday'

<https://rmfrancis.weebly.com/chain-coral-chorus/into-the-everyday>

'The Mind seemed to grow giddy by looking so far back into the abyss of time'

<https://rmfrancis.weebly.com/chain-coral-chorus/the-mind-seemed-to-grow-giddy-by-looking-so-far-into-the-abyss-of-time>

These blogs explore the geological world of the Black Country in a deep and reflective way, and they are Rob's mouthpiece to keep us up to date with his geopoetic activities. Take time to read, think and enjoy!

Talks and workshops

Saturday 14 November, 10.00 - 1.00: 'Rich Soils: A Geopoetry Workshop'. Free online poetry workshop with R.M. Francis, which will virtually explore the Wren's Nest Nature Reserve. This event is organised by the University of Wolverhampton as part of the 'Being Human Festival', 12 - 22 November. For more details and to register go to:

<https://www.eventbrite.co.uk/e/rich-soils-a-geopoetry-workshop-tickets-117242442301>

Geopoetry 2020

Rob delivered a paper at the 'Geopoetry 2020' conference which was organised by the Geological Society. The whole event is online here, and his talk is about 20 minutes in:

<https://youtu.be/Xzs5YMhjiAk>

More news from Rob:

"I managed to get some money to pay for some guest blogs, commissioned poems and performance readings / Q&As from four local poets. Each poet will select one of the geosites to explore, and as inspiration for their poem and blog; I'll then do a series of online readings and discussions about their experiences. We've got Roy McFarlane, Liz Berry, Emma Purshouse and Lee Armstrong. I'm pretty excited about this, it'll really help bring in wider audiences to our work, and hopefully encourage more people into the geopark and the society". ►

P.S. For anyone who is doubtful about the rôle that poetry has to play in the subject of geology, I recommend taking a look at this article on the Geological Society's website (Ed):

<https://www.geolsoc.org.uk/Geoscientist/Archive/May-2020/Why-Geopoetry>

Finally, a poetic tribute from Rob to our Chairman. ■

R.M. Francis (and Julie Schroder)

Keeper of Geology

R.M. Francis

Pedestrians pass Graham,
unblinking in stone
stepped strides - Anagogical
gaze, calm smile.
With pushchairs armed
with market loot, taking
rest at Duncan Edwards' feet,
he works down Broadway,
pocket readied with loupe,
field notes, clinometer.
Graham hears the sounds under Dudley:

seven
legged wyvern
props our streets
with upturned feet -
300 tonne foundations
harmonised from Wenlock,
guards thin grain preservation
of Silurian soft tissues (Graham
says, *iss geology's Holy Grail*), sirens
passengers through cathedral arch - portals -
to Little Tess, Hurst, Singing Cavern. Float
slow and mute, keep it on its back, spy
aragonite vaults that gape and bear
Castle Hill. Graham cuts Tipton
Road, taps toe every few
feet, listening for
echoes under
tarmac.

The Etches Collection Covid-19 Campaign

BCGS members will remember that in September 2019 there was a BCGS Field Excursion to Dorset where we enjoyed a visit to the fabulous Etches Collection Museum of Jurassic Marine Life in Kimmeridge.

After 3 months of shutdown due to the Covid-19 pandemic The Etches Collection finally reopened to the public on Thursday 16th July. However, Lockdown has hit the Museum hard and they desperately need your help.

For a charitable, independent museum that relies heavily on its revenue from ticket and shop sales it meant 17 weeks of closure and thus no income whatsoever. Despite a lot of hard work, the museum has struggled during these difficult times. This unprecedented situation has made their survival critical and this is where they need help to ensure that the museum has a viable future.

To find out more and to donate please see their website:

<https://www.theetchescollection.org/news>