

Down to Earth extra

Issue 87 March 2020



From the Editorial team...

This issue of *DtoE extra* is being put together as Coronavirus seems to be getting at least a toe hold in Britain. At the same time, there are many communities in The North of England, The Midlands and Wales coping with the trauma of flooded homes and communities.

No doubt, over the coming days and possibly even months, the Coronavirus threat will go on spreading and increasing in intensity. We have to trust that our Government and its health chiefs will continue to give us sound advice. For there seems to be little that we can do as individuals about it. Whilst it won't stop some people from panicking, there will be the vast majority who will seek to continue to get on with their lives.

You have to admire some of the flood victims, who've now been flooded, two or even three times and yet still they are determined to see it out and once their homes are dried out, they will return to carry on with their lives. Surely, what we as a rich country should be doing is seeking to give them the best possible protection that we can. At the same time we need to be drawing a big red line under any further developments on flood plains. In some cases, it may even be necessary to demolish recently built homes and either return the site for water holding, or to build replacement homes as first floor developments, at least then all that would be lost is vehicles.

Despite all the current doom and gloom, we've been working on exciting new plans for day trips later this year and residential trips for 2021. Amazingly, we already have our full programme for next year and we're giving you, our *DtoE extra* readers, the opportunity to have a sneak peek at what's on offer! We hope that you'll be abe to enjoy a fabulous field season wherever you go in 2020 and that the weather will be kind to us. At least one thing is for sure, nobody will be enduing a drought this Summer!

Chris Darmon & Colin Schofield
The Down to Earth extra Editorial team

See page 6 for our full 2021 Residential Field Trip programme!



The Crystal Palace dinosaurs are in danger of becoming extinct...

The Crystal Palace dinosaurs have featured in *DtoE extra* before, as recently as 2017 when funds were being raised locally for their restoration. Now the 30 creatures, which were the creation of leading nineteenth century artist and naturalist Benjamin Waterhouse Hawkins have been placed on Historic England's latest 'at risk' register.

The massive sculptures, made from a type of concrete, were placed in Sydenham Park for the Great Exhibition of 1851. They were an instant hit with the public and were retained after the Exhibition came to an end.



The size and details of the creatures can be seen in this image. (Image: Friends of the Crystal Palace dinosaurs)

At the time there were considered to be accurate representations of the animals they depicted. However we now know that there were



Damage to this creature's tail is all too obvious. (Image: Friends of the Crystal Palace dinosaurs)

some significant errors, the most famous being Iguanodon. It is shown as being a quadruped with it's famous 'claw' being shown as a single horn on its nose!

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Material is © Geo Supplies Ltd. 2020 You are welcome to share DtoE extra with others in your group and reproduce items contained here, provided you acknowledge the source. Following a recent survey on behalf of the Friends of the Crystal Palace dinosaurs, significant damage has been detected. This includes major fractures and cracks affecting limbs and tails. Smaller parts such as the tips of tails, toes and teeth are in danger of breaking away and even being lost completely.

The 30 creatures are all highly valued English heritage and are Grade 1 listed. So the Historic England; at risk' label is a major step forward in recognition of their current state. The sculptures sit on an artificial island in the Park, surrounded by a lake. It is thought to be ground instability that's at the heart of the problem. Water levels in the surrounding lake change frequently and the ground has often been water logged.

Historic England's Chief Executive, Duncan Wilson speaking at the launch of the 'at risk' register said: "These wonderful creatures are n a state of disrepair and require significant conservation work. We don't want them to become extinct again."

Let us hope that this time around there will be some national funding available. It should not be for local people such as the Friends of the Crystal Palace dinosaurs to be lumbered with the massive efforts required to save them from extinction.

Sirius Minerals: takeover by mining giant Anglo American, is still not in the bag...

Despite what we said in the last issue of *DtoE extra*, the takeover of struggling North Yorkshire Polyhalite miner Sirius, is still not a done deal. Anglo made what it described as its 'final offer' of 5.5 pence per share which valued Sirius at £405 million.

Sirius has a lot of small investors, many of them local people from the Whitby area. They paid the retail price of 25 pence per share and are angry at the scale of losses they are facing. Accordingly, they have been determined to try and thwart the deal. As recently as February 29th., a report in The Financial Times carried the story that they are trying to raise the sum of £460 million by a bond issue. Meanwhile Sirius state that without the takeover, they could be forced into administration in days or weeks.

Plymouth's Drakelands Tungsten mine has new owners and could reopen at some time in the future...

Back in 2018, Wolf Minerals the owners of the massive Drakelands opencast tungsten pit, near Plymouth suddenly ceased production in what was a fairly messy and debt laden collapse. At the time, Drakelands was the fourth largest tungsten producer in the world. One of the companies involved at the time, was County Durham based Hargreaves Services and it is them who have now acquired the site, though they deny being the owners.

It's a complicated story, with a far from clear outcome, as this report from BusinessLive describes:

"One of the country's largest property and industrial firms has begun restoration work at a tungsten mine which shut a year ago after swallowing £100 million and driving its owner into liquidation.

A firm associated with the North East's Hargreaves Services Plc is working at the vast Drakelands mine site at Hemerdon, on the fringe of Plymouth.



The massive opencast pit at Drakelands. (Image: Tungsten West Ltd.)



Show Dates

All shows are indoors with refreshments & ample free parking

All shows are open: 10am - 5pm Saturday 10am - 4pm Sunday

Admission (one entrance fee covers the whole weekend): Kempton Park: adults £5.50, seniors £3.00

All other shows: adults £4.50, seniors £2.00 All shows: children 8-16 £1.00, under 8's free

Rock and Gem Ltd., 27 Common Hill, Steeple Ashton, BA14 6EE Tel: 01380 871835 • http://www.rockngem.co.uk

March 7 & 8

Exeter Racecourse, Devon

Rock, Gem 'n' Bead Show April 4 & 5

April 4 & 5 Rock, Gem 'n' Bead Show Chelmsford City Racecourse, Chelmsford, Essex

Exeter Racecourse, Devon

March 14 & 15

Rock, Gem 'n' Bead Show

April 18 & 19 Rock, Gem 'n' Bead Show

Brighton Racecourse, Brighton, East Sussex

Newark Showground, Nottinghamshire

March 21 & 22 Rock, Gem 'n' Bead Show

April 25 & 26 Rock, Gem 'n' Bead Show **Nantwich Civic Hall, Cheshire**

Cheltenham Racecourse, Cheltenham, Glos.

But it is unlikely any of the site's rich seam of tungsten and tin will be dug because industry experts say restarting production could cost as much as £40 million. And Hargreaves said it has no intention of digging, having just posted £9.9 million losses and announced redundancies. Hargreaves lost £8 million when Drakelands' owner Wolf Minerals, a customer, went into liquidation in late 2018 owing £70 million.

The Government has, however, confirmed a new company called Drakelands Restoration Ltd has acquired the mine, and some of the assets on site. A Department for the Environment spokesman said: "Some assets, including the mine, was bought from Wolf Minerals by Drakelands Restoration Ltd earlier this year. I believe the firm is coordinating the restoration of the area."

Drakelands Restoration Ltd was incorporated in March 2019, alongside two other firms: Drakelands Mine Restoration Ltd and Drakelands Holdings Ltd."

In a further twist to an already complex story it now appears that a new company, Tungsten West Ltd. is the new owner of the mine and their website, which is currently under construction has the strap line: "Restarting the Hemerdon Tungsten mine." In a sign that things might be moving in the direction of an eventual reopening, they are advertising jobs!

In a rare move, Italian prosecutors seize a famous coastline over conservation fears...

It would be unthinkable for the British Government or, even worse, our law enforcement agencies to seize control of the World Heritage coastline in Dorset, yet that's exactly what's happened to the famous Scala del Turchi limestone coastline in Southwest Sicily.

This is what Wikipeda says about it:

"The Scala is formed by marl, a sedimentary rock with a characteristic white color. It lies between two sandy beaches, and is accessed through a limestone rock formation in the shape of a staircase, hence the name. The latter part of the name derives from the frequent raids carried on by Moors."

The site of the Scala dei Turchi, meaning Turkish steps, is a major tourist attraction and therein lies the problem. Prosecutors claim that the local authorities have failed to protect the vulnerable coastline from degradation. They further claim that the many thousands of visi-





tors Two views of the amazing cliffs - complete with tourists.

have inflicted human erosion on the site and even stolen pieces of the rock.

Accordingly persecutors from the Agrigento in Sicily have taken over the site, which has been a candidate for UNESCO World Heritage status. They have temporarily closed th site while they assess the damage to the white marl.

In a statement, the Agrigole of Sicily says: "The Scala dei Turchi has immense historical, landscape and geological value," wrote the chief prosecutor of Agrigento, Luigi Patronaggio, in a report. "But, unfortunately, there is a lack of protection for the site."

"We have been denouncing the state of abandonment of the Scala dei Turchi for seven years," the president of the Mare Amico association,





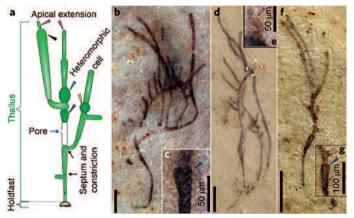
which deals with the environmental protection of the coast, told the Guardian

"Erosions increase and tourists often detach the marl and steal it, as if it were a souvenir. It is crumbling before our eyes. It is a very fragile area and we need to find a way to protect it, otherwise we risk losing it forever."

As is so often the case, this stretch of coastline has been the subject of an ongoing land ownership controversy. A part of the coast, which is unaffected by the move, is owned by the local authorities in Replanted. However the part that's most visited is in dispute between a local man who clams to own it and the local administration.

Billion year old seaweed described from China...

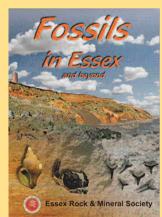
Virginia Tech paleontologists have made a remarkable discovery in China: 1 billion-year-old micro-fossils of green seaweeds that could be related to the ancestor of the earliest land plants and trees that first developed 450 million years ago.

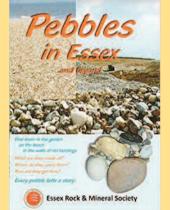


The seaweed specimens and their reconstruction. (Image: Virginia Tech)

The micro-fossil seaweeds, a form of algae known as Proterocladus antiquus, are barely visible to the naked eyed at 2 millimeters in length, or roughly the size of a typical flea. Professor Shuhai Xiao said

Pebbles in Essex have been joined by Fossils...





The lovely people at Essex Rock & Mineral Society have now published another excellent fold out poster, This time it covers Essex Fossils. *Buy one of each for £5.00 including postage*.

Available from Geo Supplies Ltd. www.geosupplies.co.uk

the fossils are the oldest green seaweeds ever found. They were imprinted in rock taken from an area of dry land, formerly ocean, near the city of Dalian in the Liaoning Province of northern China. Previously, the earliest convincing fossil record of green seaweeds were found in rock dated at roughly 800 million years old.

The findings -- led by Xiao and Qing Tang, a post-doctoral researcher, both in the Department of Geosciences, part of the Virginia Tech College of Science -- are featured in the latest issue of Nature Ecology & Evolution.

"These new fossils suggest that green seaweeds were important players in the ocean long before their land-plant descendants moved and took control of dry land," Xiao said. "The entire biosphere is largely dependent on plants and algae for food and oxygen, yet land plants did not evolve until about 450 million years ago," Xiao said. "Our study shows that green seaweeds evolved no later than 1 billion years ago, pushing back the record of green seaweeds by about 200 million years. What kind of seaweeds supplied food to the marine ecosystem?"

Material from Science Daly, where you read the full article at: https://www.sciencedaily.com/releases/2020/02/200224111339.htm

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As a reader of DtoE extra, we regard you as a valued supporter of what we do to encourage geological fieldwork in the UK and abroad. Indeed, many of you have joined us on trips over a number of years.

We've got a great programme of residential field trips planned for 2021. We are giving you exclusive access to that field trip programme, until March 31st. After this date, it will be published on our website and available to all.

To get to the front of the queue, email us for a brochure and a booking form and that way you'll guarantee to get a place. This is particularly important if you are looking for a single room.

For your brochure and booking form contact us at: Email: downtoearth@geosupplies.co.uk

If you'd like to discuss anything, please ring us on: 0114 245 5746

Our residential field trips for 2021...

- Fuerteventura February 22 March I
- South Devon, English Riviera April 7-14
- Berwick upon Tweed April 20-25
- Northwest Highlands of Scotland May 5-13
- Idrija Geopark, Slovenia May 20-27
- Islay, Jura, Gigha June 5-13
- · Heart of Wales June 26 July 3
- Summer School, Northeast England July
- The Outer Hebrides September 1-9
- Minehead September 14-19
- Bridgnorth, Shropshire September 24-29
- Anglesey October 5-10
- North Norfolk Coast October 22-27

We look forward to hearing from you! Brochures for all trips, execpt the Summer School, are now available!



Our book and map sale has been extended! At least 10% off all books and BGS maps, plus a clearance event with discounts of 50% or more! (Available to callers at the shop only)

Several of you have already paid us a visit and gone away with a number of publications. Why don't you pay us a visit during February? You will be most welcome!

Over the past couple of years we've accumulated lots of local publications, some of which are now out of print. We want to clear these, along with other books and maps, at discounts of 50% or more, so that we can make space for new titles. We invite you to come and browse!

In addition, we're also giving discounts of at least 10% off regular stock. This includes all BGS books and maps. Many of these are titles not discounted by Amazon!

Available to personal callers only until March 31st. 2020.

See opposite for shop opening hours. We look forward to seeing you!

Spare a thought for the bookseller...

from time to time we hear stories from you our readers about difficulties getting hold of some titles. Happily, we're sometimes able to help you, but we recently had just such a horror story of our own.

HOW TO READ THE

LANDSCAPE

We try to stock the title "How to read the landscape" by Robin

Yarham. It's a title that we rate highly. It sells steadily, but not in large numbers. The last time we

ordered, we were told that the minimum carriage paid order was something like 16 copies. Such an order lasts us more than 12 months, but that was fine.

Imagine our surprise when we rang them recently only to be told that they only had 2 copies in stock. We cannot open a credit order because all othe company's other titles are fiction, so of no

interest. We could place an order proforma, but they can't or won't do back orders for such accounts! So they have only 2 copies in stock, we can't have a credit order and they won't order in more copies for us! Publishers and authors may wonder why people buy online from the likes of Amazon - you have your answer. I hope that this author isn't too worried about the size of his royalty cheque!

Time for a Wiltshire geology bundle...

Our recent Day School, held at Devzes in Wiltshire was attended by Steve Hannath of the Wiltshire Geology Group. He reminded us that there are still a number of inexpensive booklets available that describe aspects of the geology of the county,

The guides cover: The Vale of Pewsey, Bradford-on-Avon, The Vale of Wardour and Salisbury Cathedral Close.

The set of four cost £9.50 including UK postage.

New books for this issue...

Title: Chalk & Cheese

Wiltshire's rocks

Author: Steve Hannath Publisher: Ex Libris Books

ISBN: 978 1906641 65 8 Format: Softback

Cost: £8.00

Level: Adult & general interest

My rating: *****

CHALK & CHEESE

Wiltshire's rocks and their impact on the natural and cultural landscapes

Our price £9.00 Inc. postage

From our forthcoming review: "After a gap of many year's there's once again a book describing the rocks and geology of this delightful English county."

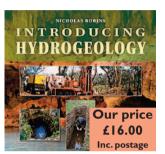
Title: Introducing Hydrogeology

Author: Nicholas Robins
Publisher: Dunedin Press
ISBN: 978 1 78046 078 9

Format: Softback Cost: £14.99

Level: Student & general interest

My rating: ****



From the back catalogue...

Title: Jurassic Mary
Author: Patricia Pierce
Publisher: The History Press
ISBN: 978 0 7509 5924 7
Format: Softback

Cost: £9.99 Level: Adult general interest

My rating: *****

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Two more Winter Day Schools are here...

Thanks to all of you who have joined us on one of our Day Schools. On February 26th, there were 39 people on our Geology of the British Isles day in Devizes - a record number!

Our Mineral Day at The Lapworth has a revised date, to avoid a strike by University lecturers and our Newcastle day also had its date changed - see below.

NEW DATE Friday, March 6, Newcastle upon Tyne, CU House How the Earth works, new views of an old planet

An exciting day that starts with an examination of our planet through its rocks and minerals and then moves on to peer inside to see how it is constructed, before moving on to examine how our understanding of how it works has changed radically in the last 100 years. Includes some practical hands-on rock work and also lots of handouts! At this venue, only hot drinks and biscuits are included in the price. Meeting: Commercial Union building, Pilgrim Street, Newcastle upon Tyne at 10.30 Cost £25.00

NEW DATE Wednesday, March 25 Lapworth Museum, Birmingham

The amazing world of minerals

Minerals are simply the Earth's chemical compounds. Many are beautiful, some are valuable, without them we would have nothing. This day looks at all aspects of minerals, their chemistry, their classification and their many uses. There will be plenty of hands on practical work with some fine specimens to enjoy, as well as some lively teaching time. This is a day for anyone with any interest in learning more about minerals.

As we are at the Lapworth Museum we'll be able to enjoy some of their fine specimens as part of the practical session. At this venue only hot drinks and biscuits are available.

Meeting: Lapworth Museum, Birmingham University at 10.30 Cost £20.00

Spring Day Trips are here...

The standard price is £15.00 per person, with some trips at the lower rate of £10.00 per person. All trips offer a £3.00 discount for holders of Club Class, students under 19 and groups of 5 or more people booked together.

To book for any Day Trip go to: www.geosupplies.co.uk and enter the online shop. Alternatively ring us on: 0114 245 5746

Wednesday April 8 Horton in Ribblesdale

The area around the Pennine Way village of Horton in Ribblesdale has much of geological interest, not least the unconformity between the Silurian geywackes and the Carboniferous limestone. The Arkow Wood quarry works the limestone, but the unconformity is there for all to see. During the day, you'll also be able to see some limestone pavement, the drumlins around Ribblehead and the magnificent Penyghent, which exposes the Upper Carboniferous, Yordale strata. Meeting: Horton in Ribblesdale Station at 10.45 (In time for the train from Leeds). Standard prices.

Monday, April 13 **Charnwood Forest**

We'll be packing a lot into this day with the Precambrian Charnian volcanics and intrusives, along with a glimpse of the Carboniferous, the Triassic and the Quaternary. All this is within a few miles of our starting point, with relatively short walks at each locality.

Meeting: Morley Quarry, Shepshed Cricket Club at 10.30 Standard prices

Saturday, April 18

Rocks & Minerals of the Llangollen area

The Eglwyseg escarpment towers above the Vale of Llangollen and brings Carboniferous limestones in unconformably over Silurian slates. There are superb cross bedded sandstones in Trefor Rocks. The limestones of Ruabon Mountain host rich veins of lead and zinc minerals which were formerly mined. The trip commences at the Country Park at Minerva where the lead was once smelted. Meeting: Minerva Country Park at 11.00 Standard prices

Wednesday, April 22 Aust Cliff, Gloucestershire

Aust Cliff is one of England's most famous localities. It shows rocks from the Triassic, Rhaetic and Lower Jurassic. There are some great stories about ancient environments with strange things going on. There are also some interesting fossil remains including the bone bed! Due to tidal constraints we may also visit another nearby locality. Meeting: Aust Cliff car park at 11.00 Standard prices

Wednesday, May 20

The 'hidden rocks' of Holymoorside, Derbyshire

Back in the day, when BGS were still sending mappers out into the field, they brought their trainees to the village of Holymoorside, near Chesterfield in North Derbyshire, to teach them the art, and science, of 'feature mapping'. This taught them how to recognise often subtle changes in the landscape that were the tell tale signs of changes in the underlying rock types. Don't worry, you'll not be expected to make a map and you will also get to see some real rock exposures! It's really good fun in some lovely countryside.

Meeting: Holymoorside Village Hall car park at 10.30 Standard prices

Wednesday, May 27

Rocks of the White Peak, Derbyshire

This field trip takes in the limestones of this former working quarry. The original limestone has been dolomitized and has been worked for use as a refractory material. There's lots to see in what was an enormous quarry. If time permits, we may also visit another nearby locality.

Meeting: Hoe Grange Quarry, nr. Brassington 10.30 Standard prices

Geology Field Trips Led By Dr Danny Clark-Lowes



2020 - Geology Field Trip to Annapurna Nepal

INDUS 2021 - Geology Field





Trip to Morocco

2021 - Geology Field Trip to Jordon



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Our Residential Field Trip Programme for 2020



LATEST NEWS: Due to an illness related cancellation, we have a single vacancy for a female on the Shetland Island trip - contact us if you want to come! There's also a single vacancy on Dingle.

We can also accommodate several more people on our trip to Norway. If you haven't been then this is a MUST!

The Summer School, at the University of Worcester in August, now has 25 people booked - remember that there are plenty of single rooms available. We have vacancies on all of our Autumn trips, including Pembrokeshire and Arran, Forest of Dean, the Yorkshire Dales and the Malvern Hills.

For further details, visit the website or Tel: 0114 2455746.

Booking forms are only available direct from us. Email: downtoearth@geosupplies.co.uk

Come & join us on one of these trips in 2020...

- Norway revisited March 27 April 5
- Dingle Peninsula May 31 June 7
- Shetland Isles June 20-27
- Western Lake District July 4-11
- Summer School August 15-22
- Pembrokeshire September 1-8
- Isle of Arran September 14-21
- Forest of Dean September 27 October I
- The Yorkshire Dales October 6-11
- The Malvern Hills October 23-28

All 2020 trips have limited availability, some only one room. You are advised to contact us as soon as possible to ensure your desired trip. Booking forms are only available from us!

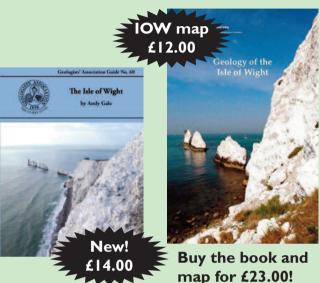
We look forward to hearing from you!

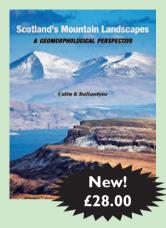
Featured books February - April

In each issue we are pleased to be able to introduce you to a range of featured books. Where they are being offered at reduced prices, these will be current to the end of the month shown above, provided that stocks are available. Please note, all prices include UK postage.



map!







1,000 piece jigsaw - includes a folded copy of the



