



Down to Earth *extra*

Issue 67 July 2018

SPOTLIGHT

- First half of 2019 now booking!
- Late vacancies for Autumn 2018
- New day trips in July
- First look at Autumn day schools
- 'Steps' course available at a time to suit you!

Mountains dominate the skyline above Banff in Canada's Alberta Province. The snow is fresh. No prizes for guessing where Chris went for his holidays!
(Photo: Chris Darmon)

From the Editor...

Over the last few months many of you will have received letters from organisations as diverse as your local church, geological club, or even your favourite charity with regard to the requirements of the General Data Protection Regulations (GDPR). My most recent, was my local dentist, who asked for permission to continue to remind me of my appointments by text message!

The GDPR regulations came into force at the end of May and come some years after the more specific Data Protection Act. Geo Supplies Ltd, publishers of *Down to Earth* and *Down to Earth extra* is registered with the Data Protection Commissioner and complies with the terms of Act regarding the storage and sharing of the data held on you both in a physical and electronic format.

Our magazine, *Down to Earth* has a list of subscribers who, by dint of paying a subscription, have 'opted in' to receive the publication. *Down to Earth extra* is similar, with the majority of you asking to receive it, whilst others of you have it forwarded by your local geology club or U3A group. Having listened to several items on the news media about the GDPR regulations, we have taken the view that we did not need to ask you if you wished to continue to receive *Down to Earth extra*, but there are a couple of things that we wanted to assure you about.

Firstly, we do not share your email address with ANY third party and will NEVER do so. Secondly, you are free to unsubscribe to *Down to Earth extra* at any time and we will always act to remove you promptly from the list of subscribers. If you have any queries or questions, please don't hesitate to contact us by email at: downtoearth@geosupplies.co.uk or by telephone on 0114 2455746.

In the meantime, we hope that you are enjoying this spell of summer weather and are out there enjoying the countryside and the geology!

Chris Darmon

Down to Earth extra Editor

Please inform us if you no longer want to receive Down to Earth extra



news update

Saddleworth Moor fire - it makes you think...

As I write these words, a wildfire is raging on Saddleworth Moor in Greater Manchester. The fire is being fought over a front of some 6km (3.7 miles).

Despite the presence of many firefighters using both water and beaters, the fire is continuing to advance and is currently threatening more than 50 homes. Some 150 people have been evacuated for their own safety.

Saddleworth Moor is currently extremely dry due to the current lack of rainfall and the firefighters are facing additional problems caused by the wind and also the deep layers of peat which cause the fire to re-ignite without warning.



*The Fourmile Canyon wildfire in Colorado, September, 2010.
(Photo: Bo Insogna/Striking Photography)*



*The Saddleworth Moor wildfire blazes out of control on June 27th.
(Photo: Manchester Evening News)*

Over in the United States, where they always seem to do these things on a scale that's difficult for us to imagine, one of the largest modern day wildfire was recorded in Colorado in September 2010. It raged for four days and destroyed an area of 10 square miles and desecrating 168 homes. It led to insurance claims totalling \$217 million.

Now a group of undergraduate students in the state of Colorado are

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researching the geology of wildfires. They are particularly looking at the geomorphological aspects of a wildfire followed in quick succession by catastrophic floods, something that has happened on many occasions. Their findings will be published in *Earth Surface Processes & Landforms*, the journal of the British Society for Geomorphology, later this year.

"Our focus was to describe the soil erosion after this fire-flood scenario," said James Kaste, associate professor of geology at William & Mary College. "Precipitation hit the landscape relatively evenly in our study area, so all of the soil had been hit by strong rains, but not all of the soil had been hit by the fire. We analysed soils from the non-burned and burned areas and used isotopic signatures of erosion to measure how much soil was lost."

You can read more at: <https://phys.org/news/2018-02-team-geology-wildfires.html#jCp>.

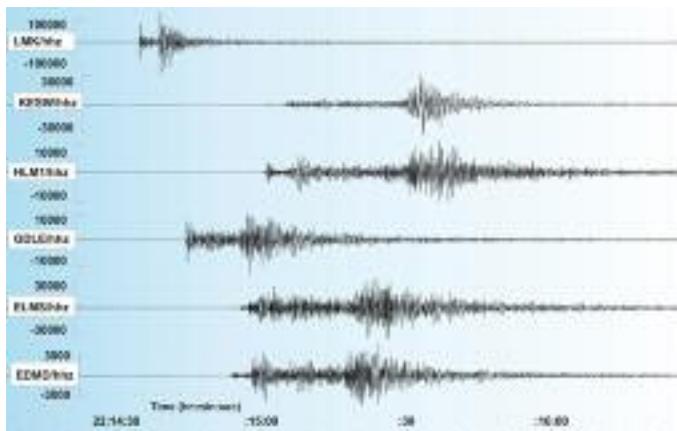
It all makes you think about fires in the geological past when there weren't firefighters to put out the flames. Fires caused by natural phenomena such as volcanic eruptions could have raged for years over huge swathes of the continental surfaces. Whilst we have been able to identify some of these from evidence preserved in the rocks, others have still to be discovered.

The Editor comments: If the subject interests you, you may wish to know that a new book entitled "Burning Planet" has recently appeared, see the last page of this issue for details.

Grimsby becomes the latest place in Britain to experience an earthquake...

If you were considering where the epicentre of an earthquake might be, Grimsby would not, I suspect, have featured on your radar. However this Lincolnshire coastal town became home to a magnitude 3.9 event on June 10th.

A 3.9-magnitude earthquake centred in north-east Lincolnshire has reportedly been felt up to 60 miles (100km) away. The British



The seismological trace of the June 10th Grimsby earthquake. (Image: BGS)

Geological Survey (BGS) said it happened at 23:14 BST on Saturday, with the epicentre in Grimsby at a depth of 18 km. It was felt mainly in Lincolnshire and Hull, the BGS added.

According to the BGS website, it was felt in NE Lincolnshire, North Lincolnshire, Kingston-upon-Hull, East Riding of Yorkshire, West Yorkshire, South Yorkshire, York, Rutland, Leicestershire, Peterborough, Nottinghamshire and Norfolk. There was widespread, though mainly minor damage to property over a wide area. Most common were cracks in chimney stacks.

This was the largest earthquake in the area (within 50km) since the magnitude 5.2 ML Market Rasen event on 27 February 2008, which was felt throughout England and Wales. This is a region that has experienced a few earthquakes of this size, and larger, in the historical past. In 1703, a magnitude 4.2 event occurred near Hull, in 1750 a magnitude 4.7 event occurred in the Southern North Sea (approximately 20 km offshore Mablethorpe) and in 1954, a magnitude 4.2 event occurred near Bridlington.

If you live in the area and felt the earthquake, please tell us!



Show Dates

July 21 & 22 Rock, Gem 'n; Bead Show
Newcastle upon Tyne Racecourse

July 28 & 29 Rock, Gem 'n' Bead Show
Kempton Park Racecourse,
Sunbury on Thames, Middx

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,
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August 4 & 5 Rock, Gem 'n' Bead Show
Royal Welsh Showground,
Builth Wells, Powys

August 11 & 12 Rock, Gem 'n' Bead Show
Pavilions of Harrogate, North Yorkshire

New animation brings Mary Anning to life for young people...

The story of Mary Anning and her collection of fossils has become the stuff of folklore. Her story is an inspiration for people of all ages, but especially for youngsters. Over the years there have been many attempts to write about Mary and her achievements, but very little has been written with children specifically in mind.



A still from the animation "The girl who helped discover dinosaurs". (Image: Courtesy of BBC)

Now a beautiful animation by Anna Humphries can be viewed on the BBC website. Entitled "*The girl who helped discover dinosaurs*" it tells the story in a simple way for children, setting Mary in her time and place in a very sympathetic way.

For more information go to:

<https://www.bbc.com/ideas/videos/the-girl-who-helped-discover-dinosaurs/p06bf1s>

Reopened coal mine in Neath Port Talbot to create 200 jobs and boost the local economy...



The rural setting of the Aberpergwm Colliery in Neath Port Talbot (Photo: Wardell Armstrong)

Plans for the reopening of an underground drift coal mine have been approved by Neath Port Talbot councillors. The Aberpergwm Colliery closed in 2015 with the loss of around 300 jobs. However new investors have come forward who are set to reopen the colliery, restarting coal production.

Hugh Towns, minerals advisor for the council, told councillors the company, Energybuild, had been owned by Canadian firm Walter Energy, which went into administration. However, in the past six months a firm of investors had bought Energybuild, which would now be a standalone UK company. These changes in ownership of the site had held up a previous agreement to reopen the colliery.

It is anticipated 115 jobs will be created in the first year of operation, increasing to 200 jobs by the fifth year. The aim is to invest an initial



The impressive entrance to the drift mine is seen in this 2011 photograph (Photo: Drift mine magazine)

£10 million and steadily build up production towards an estimated 1 million tonnes per year. The coal, which is high quality bordering on anthracite will be used locally in the power generation and steel industries.

Due to shortages of high quality coal across the world, prices have been rising and with it optimism in new mining projects. Let us hope that this will be a successful venture that brings with a better economic prospects for an area that has not had it good in recent years. This, together with other developments in South Wales puts it at the head of UK coal production, ahead of England and Scotland.



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Children's geological activities for the school summer holidays...

If you looking for somewhere to take the children or grandchildren this summer with a geological theme, those good people at **Rockwatch** may be able to help you!

They've organised a rock and fossil day at Ware Museum on Tuesday, August 14th. Additional events may be available, contact the **Rockwatch** team at the address shown below.

For more information about Rockwatch, go to:
<https://www.rockwatch.org.uk/rockwatch-events/whats-on/>

Irish gold mine in the news as it hits 'the mother lode'...

Galantas gold in Omagh in Northern Ireland is now able to begin limited production after intersecting the main gold vein in underground development works. They have made the find some 15 metres beneath the base of the Kearney open pit. Shares in the Company jumped 12.5% on the news.



The open pit at Galantas Gold in County Omagh, Northern Ireland (Photo: Galantas Gold)

The mining company also said it planned to develop a horizontal tunnel, which is expected to provide a "limited feed to the mill" early in the third quarter. Galantas will also extend the existing decline tunnel in late 2018 or early 2019.

Galantas' Omagh is Northern Ireland's only producing gold mine. The firm, which kicked off the mine's expansion last year after the open-pit site was exhausted, has said it expects to produce about 8,000 ounces next year.

Sirius shares rise as deal is signed with Nigeria...

The North Yorkshire polyhalite mine project is looking more secure almost by the day as news trickles out of yet another major contract for the supply of the natural fertilizer is made public.

In the latest deal, Sirius Minerals has agreed a seven-year deal to supply 350,000 tonnes of POLY4. The deal also gives them exclusive rights in Nigeria. "Africa is a huge potential market for POLY4 and we are very pleased to establish our initial footprint in Nigeria, which is the largest market in West Africa," managing director and chief executive Chris Fraser said in the statement.

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Summer Day Trips

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.

Day trips are suitable for all levels of knowledge, unless shown otherwise. Please note however that most involve modest walks. If in doubt, please ask. Accompanied children, and dogs, are usually welcome!

Saturday, July 21

The fabulous Malvern Hills

Come join us for a day in the Malvern Hills! There's nowhere finer than this for a day of discovery in the very heart of the Abberley & Malvern Hills during the Annual GeoFest. As President of the Geopark, I want to show you some of our fine Precambrian and Silurian rocks. You'll see ancient igneous rocks, some great landscape and a Silurian limestone - you might even catch a glimpse of a trilobite!

Meeting: Malvern Hills GeoCentre, Wyche, Malvern (WR13 6PJ) at 11.00 parking nearby Lower rate prices

Monday, July 23

Geology of the Woolhope Dome, Herefordshire

This Silurian inlier is now part of an extended Abberley & Malvern Hills Geopark. It features folded and faulted Ludlovian rocks including both limestones and shales. These are fossiliferous and of great interest. You've probably seen the Woolhope Dome from many miles away, now you can get up close and personal with it!

Meeting: Swardon Quarry picnic site, Nr. Mordiford (Grid Ref. SO 578385) at 10.30 Lower rate prices.



The view of Shropshire from Lyth Hill

Sunday, July 30

Hilltops of Shropshire

There's nothing quite like looking down onto the geology of an area. In this unusual day, we'll be taking a look at the geology of Shropshire from the top of Lyth Hill and Haughmond Hill. Whilst the local rocks are Precambrian sediments, those in the distant views come from a range of different geological periods. At Haughmond Hill we are able to view a working quarry. We finish our day with a visit to Grinshill which is home to the rock that forms the door surround at Number 10 Downing Street!

Meeting: Lyth Hill Country Park at 10.30 Standard prices.

Monday, July 31

Geology of Shelve & Stiperstones

It's a little known fact that the county of Shropshire has historically produced more lead ore than any other area of England. The mines around Shelve were amongst the most productive and were well organised and run with extensive infrastructure, including narrow gauge railways. On this trip we explore ore something of the surface remains and also make a visit to Stiperstones to see a major quartzite deposit.

Meeting: Car park at Seilbeach Village Hall SY5 ONZ at 11.00 Standard prices.



Rock face at Wren's Nest NNR

Wednesday, August 1

The rocks and structure of Wren's Nest, Dudley

Have you ever had a go at making a geological map or are you new to geological fieldwork and wonder how we work things out? This trip offers two different levels of activity in the same place with the choice open to you. There's also an opportunity to join a trip aboard a canal boat beneath the Castle Hill to observe a former limestone mine where Murchison gave a public lecture. The day finishes with a visit to the Dudley Archive.

Meeting: Wren's Nest NNR at 10.30 Standard prices with the Canal Tunnel trip charged as an extra.

Thursday, August 2

The limestones of Wenlock Edge

The Silurian Wenlock Limestone of Shropshire is one of our iconic rocks. It has been quarried for several hundred years across a wide area and is the source of some beautiful fossils. We are going to examine it at several different localities along the superb Wenlock Edge. A moderate amount of walking is involved.

Meeting: Car park north of B4371 SW of Much Wenlock (Grid Ref. SO 613996) Standard prices.

Several of these day trips take place during the week of our Summer School which is based at Harper Adams University in Shropshire. If you are interested in attending other days, please let us know.



Don't worry, we don't bite!

All our educational classes and courses are friendly, informal and open to all.

Come and join us!

Autumn distance learning courses

For this Autumn we are planning to run one brand new course entitled "Around the world in 20 great geological stories", as well as offering "How the Earth works" and "British Isles geology" as supported self study course on Moodle, our easy to access learning platform.

Finally, for those of you looking for a beginners' course in geology, we're delighted to be able to inform you that our popular 'Steps towards the rock face' course is now available 'on demand', at any time of the year. It allows you to access the materials at any time for a period of 6 months on our Moodle site, or to receive them in printed form. See below for more details.

"Steps towards the rock face" - our popular course for those new to geology and the Earth sciences. It covers a wide spectrum of basic materials on rocks, minerals and fossils and much more besides. This course has been specifically designed with adult learners in mind. It does not require you to submit homework and you can do it electronically or by post to suit your requirements.

Cost: £75.00 by Moodle, or £100.00 by post, student under-19 £50.00 (Moodle only).

Details for our other Autumn courses will be published in the August issues of *Down to Earth* and *Down to Earth extra*. Or for more information email: downtoearth@geosupplies.co.uk

Autumn face-to-face classes, some good news and some bad...

Commencing in early October we will be holding face-to-face classes at the following locations, and will be studying "World geology in 20 lessons". Sadly, despite looking carefully, we've been unable to find a suitable venue in Manchester at anything like a reasonable cost, so there will be no face-to-face Manchester class. Our classes are informal and suitable for adults with varying levels of interest and experience. You will get a warm welcome!

Monday afternoons 2.30 - 4.30
Totley, SW Sheffield

Thursday mornings
Chapelton, N Sheffield

Thursday afternoons
Chesterfield, Derbyshire

Prices are £60.00 for 10-weeks, for an additional £20.00 you can also get the online materials from this course.

Enrolments will be open from the beginning of August. For more information email: downtoearth@geosupplies.co.uk Alternatively, you can ring us on 0114 245 5746 and pay by card

Residential Trips 2018

A special offer for new people...

We do still have some vacancies on 2018 trips. Due to cancellation we have a single room vacancy on the Summer School and Isle of Wight trips - contact us for details. In addition, we're offering anyone who has not been on a residential field trip with us before

the chance of a discount of £50.00 per person (double/twin rooms only). This applies to any of the trips below, subject to availability. For further information email: downtoearth@geosupplies.co.uk

September 14-18 Filey, Yorkshire Coast

A new part of the Yorkshire Coast as we take a look at Filey Bay, the chalk at Flamborough and the Quaternary of Holderness. We are based in the lovely village of Hunmanby some 3 miles from the coast. There are just a few places left on this Autumn field trip, so grab them whilst you still can!

October 12-17 Ilfracombe, North Devon,

Yes, October is a long way off, but we are somewhat disappointed by the response to this trip. This is a new location for us and it provides such a range of different geology on the north coast of Devon and Somerset. We are including a day trip to the Isle of Lundy, weather permitting. Check out the website and see the brochure for yourself. This trip is now a definite runner now that we have had some more bookings. That said, there's still room for you!

October 24-28 The North Norfolk Coast

The perfect place to end our 2018 season of field trips! This trip is based at a comfortable hotel in Cromer which is an ideal base from which to explore this fascinating coastline. There's lots to see with the contrasting Cretaceous rocks of Hunstanton through to the most recent Quaternary deposits of Happisburgh. You'll see evidence of the last Anglian glaciation and how quickly the coast is being eroded.



**Become a Club Class
or Club Class Duo
member for 2018**

**CLUB
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We are once again offering 'Club Class' for 2018. Don't forget you can choose between a 'solo' and a 'duo', which allows a second person discounted rates on day field trips and day schools, provided the named member also attends. The discount on Day Schools has also increased to £5.00 per person.

- Join any geological day trip in 2018 and save £3.00 on standard prices
- Save £5.00 on the advertised price of any day school
- Take out any **Down to Earth** subscription renewal or new subscription and save £2.00 on the advertised price
- Enrol for any **Down to Earth** distance learning course in 2018 and save £5.00 on the full advertised price.
- Save 10% on books and maps from BGS when ordered from Geo Supplies - only available to callers or telephone orders.
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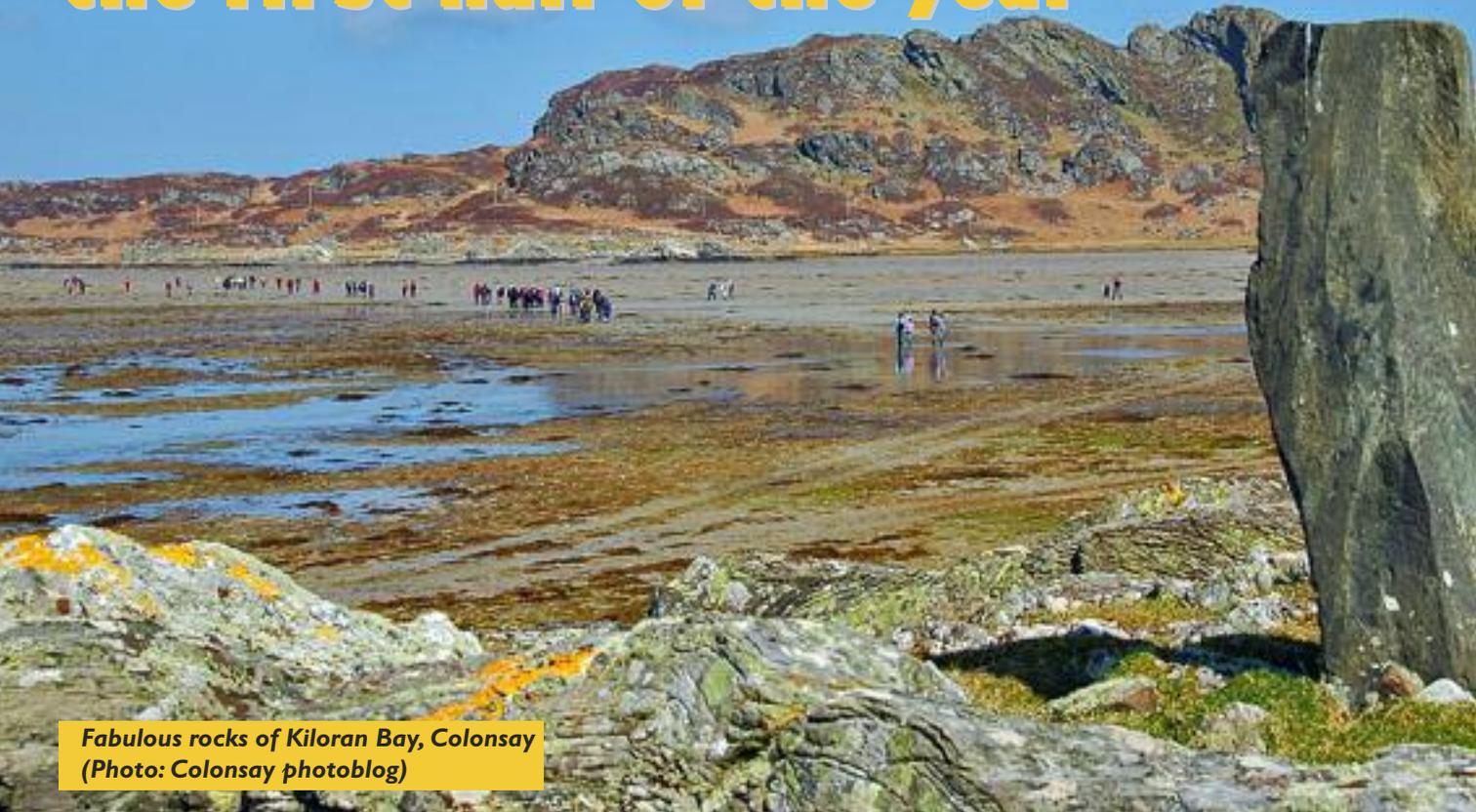
- The benefits are only available to the named 'Club Class' member.
- Holders of 'duo' can claim discount rates for a second person on day schools or day trips.
- It is the 'Club Class' member's responsibility to draw to our attention that fact that you are entitled to any discounts at the time of ordering.
- Club Class cannot be used in conjunction with any other offer to obtain multiple discounts on a product or service and neither can it be used retrospectively for something already booked, or purchased.

To enrol for 'Club Class' for just £10.00 or Club Class Duo for £15.00, go to: www.geosupplies.co.uk or ring us on: 0114 245 5746

To book go to: www.geosupplies.co.uk or ring us on 0114 245 5746



2019 Residential Field Trips Bookings now being taken for the first half of the year



Fabulous rocks of Kiloran Bay, Colonsay
(Photo: Colonsay photoblog)

The initial response to the release of the first 2019 trips has been excellent. Our April trip to Norway is now fully booked. The good news is that we still have availability on all other trips.

Brochures for trips marked with an * on the list shown opposite can now be seen on our website, along with brochures for trips this Autumn. Talking of Autumn 2018 trips, we are keen to encourage new people to join us and are offering a special £50.00 discount per person on double/twin rooms on selected 2018 trips. Details are available on request.

Go to: www.geosupplies.co.uk

Once you have decided where you want to go, just ask us for a booking form:

Email: downtoearth@geosupplies.co.uk

Our confirmed 2019 field trip programme...

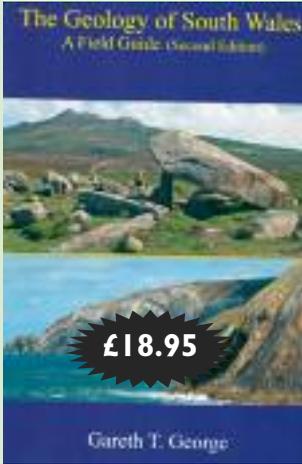
- El Hierro - February 23 - March 2 *
- Jersey, Channel Islands - April 20-27 *
- Oban & Colonsay - May 11-19 *
- The far north of Scotland - May 31- June 8 *
- Eastern Lakes & Howgill Fells - June 11-16 *
- Southwest Scotland - June 28 - July 6 *
- Summer School, Peak District - August
- South Cornwall - September 7-14
- Northumberland Coast - September 22-27
- Llyn Peninsula - October 12-17
- Hastings Coast, Sussex - October 22-27

*Trips marked with an * have brochures already available & bookings are being taken NOW! Don't forget there are still a few 2018 vacancies*



Featured books May - July

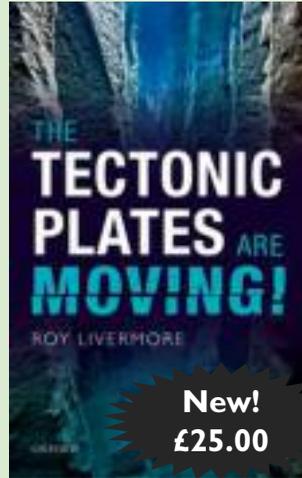
In each issue we are pleased to be able to introduce you to a range of featured books. Where they are being offered at reduced prices, these will be current to the end of the month shown above, provided that stocks are available. Please note, all prices include UK postage.



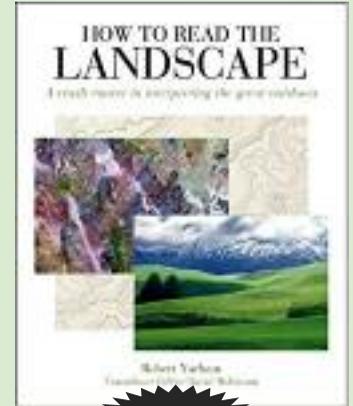
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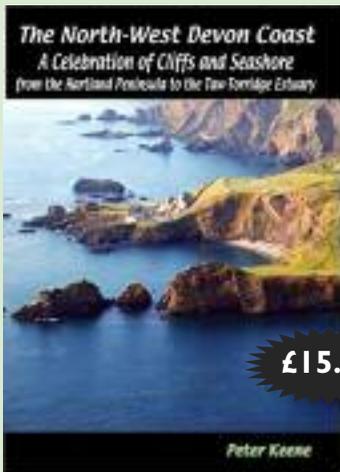
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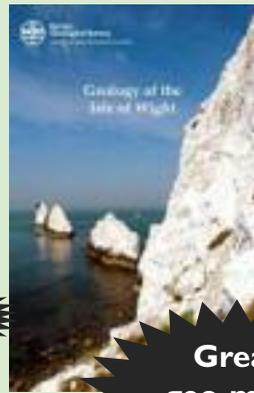
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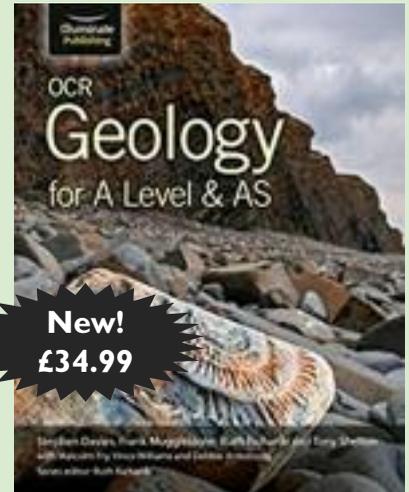
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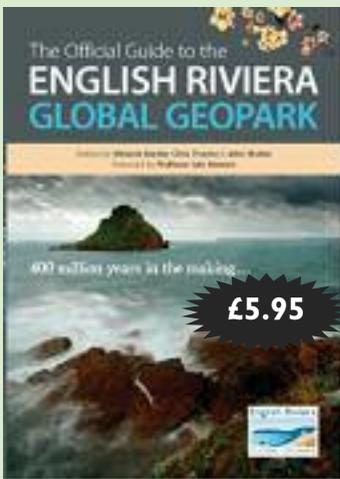
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