



# Down to Earth

*"Earth science learning for all"*

## The Northumberland Coast September 22-27 2019

*Fabulous scenery made by Permian rocks in the  
Sunderland area (Photo: Pinternet)*

### A word from your leaders...

We've done several trips to Berwick upon Tweed, when we've covered places like Siccar Point and Scremerston and on one day ventured south to look at the Upper Carboniferous rocks of Howick and Cullernose Point. This leaves a lot of Northumberland still to do, especially heading further south to places like Tynemouth and Sunderland. This trip, which is based at the small seaside resort of Seahouses, will address those previous omissions and much more!

September is a good time of year to visit this coast with some lovely quiet beaches and quaint fishing villages. We'll take in a boat trip to the Farne Islands to study the Great Whin Sill at first hand and also take a good look at the Cheviot Hills. Over the course of the four full field days, we'll take in rocks from the Devonian, Carboniferous and Permian.

This trip will provide us with a positive feast of excellent geology with something for everyone! From the Cheviot microgranite and andesites to the dolerite of the Whin Sill. From the Upper Carboniferous fluvial sandstones to coal seams. In the Permian, we'll study some of the amazing structures in the dolomites of the Sunderland area that have proved to be so problematic to geologists. How were they formed?

All this is within easy reach of our base the Links Hotel in Seahouses. We'll get around in our own minibus, driven as ever, by Colin. We expect this trip to prove popular given it's an area we've not visited before. Early booking is advised, especially if you want a single room.

**Chris Darmon & Colin Schofield**  
Course Organisers/Leaders

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### Getting to and from the area

At the time of writing, Seahouses is served by buses on the Arrive X18 route from Newcastle to Berwick, taking just under 2 hours 30 minutes. Excellent railway services from all parts of the country, serve Newcastle. The A1 trunk road gets you to Alnwick and it's then a short journey on local roads to Seahouses.



## Getting Around

For this trip we will have the use of a hired 17-seater minibus. My friend and colleague Colin will be driving, ensuring that we are safely and comfortably transported around the area. If there are too many people for the bus, we would hope to have the use of at least one extra car.

## Walking

This is not an area of particularly difficult terrain, although there will be some fairly steep ascents and descents of cliffs. We'll get you as close as possible to the relevant sites and will, in almost every case, involve minimal walking distances. Everything therefore should be within the capabilities of all of the party. However, if at any time you wish to 'opt out' that will be fully acceptable and understood. In view of the uncertainties of the weather you are strongly advised to bring all waterproofs and walking boots – particularly as you may be walking over rough ground.

## The Geology of the area

The Northumberland Coast is justifiably famous for its superb coastal geology. Along most of the coast, Carboniferous rocks, often fossiliferous, are well exposed and affected by superb folding and faulting. The Upper Carboniferous is especially well known for its superb sedimentary structures.

At Cullernose Point we will be able to study a cliff in the Whin Sill dolerite which is faulted against Carboniferous sediments. The Howick area is famed for superb sedimentary structures in the Namurian sandstones. In the Tynemouth and Cullercoates area the Upper Carboniferous rocks create some excellent coastal scenery with caves, arches and stacks. The Sunderland and Seaham areas are famed for the Permian dolomites with some amazing 'cannon ball' structures. The Cheviot Hills to the west of Wooler comprise Devonian andesite lavas which are intruded by a large granite. This is one of the most remote places, spanning the Scottish border.

If all this geological variety were not enough, you also have to add in the fabulous coastal scenery and inland landscape, much of it the results of meltwater erosion.

## Itinerary



At this stage, this is meant to be indicative of the course content. Final details will be worked out in accordance with the wishes of the group, the tides and the prevailing weather.

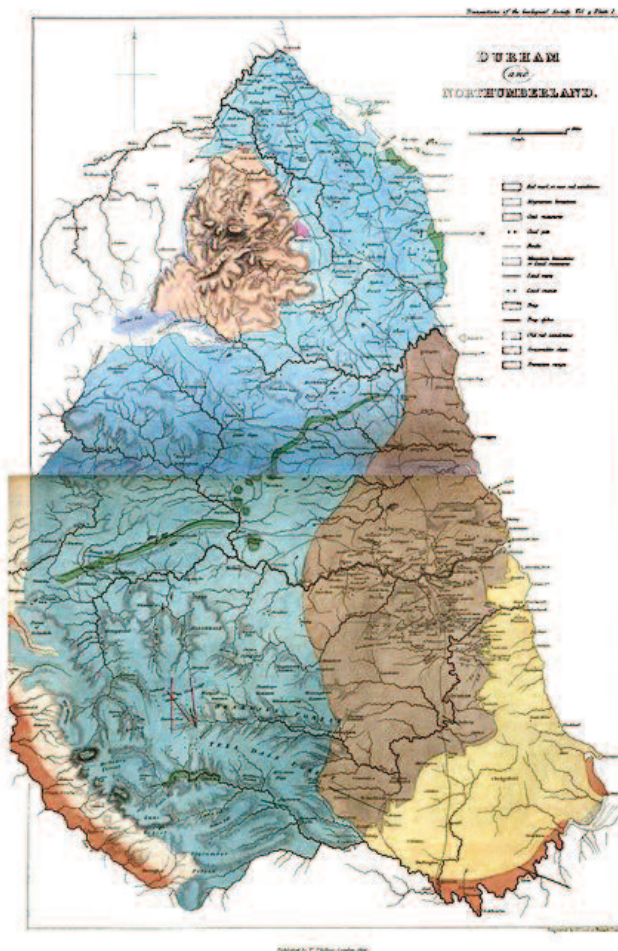
- The Whin Sill of the Farne Islands
- The Whin Sill at Cullernose Point and Namurian sediments and structures of Howick Bay
- The Upper Carboniferous and Permian sediments and landscape of Tynemouth, Seaton Sluice and Cullercoates
- Volcanics and granite of the Cheviot Hills
- Permian rocks and structures of Sunderland and Seaham
- Sedimentary and igneous rocks of the Bamburgh area

## Accommodation & Food

Good food and a good night's rest are important elements to our tours and we have worked hard to bring you good value in local accommodation. The Links Hotel in Seahouses, is a family run small hotel, which offers good hospitality. All rooms are ensuite. A 3-course evening meal is included, which will be taken at the hotel. Packed lunches will be sourced locally. Single accommodation is available, but is limited and subject to a modest supplement. We are happy to help anyone looking for someone to share a twin bedded room – simply indicate on the booking form.

## Cost

**For 2 people sharing a double or twin room, the cost of this 5-night tour will be £650.00 per person; for single occupancy, the cost will be £795.00 per person.**



## **Insurance**

Everyone booking a place and paying a deposit must take out holiday insurance. This can cover you against loss of money in the event of cancellation etc. Cover is often included in with your credit card or bank account.

## **Booking**

Please fill in and return a completed booking form.. Your booking will be confirmed upon receipt of either a deposit of £250.00 per person or the full payment. The balance of the brochure price will be due by June 30th. 2019.

***This trip will run provided a minimum of 12 people have booked by June 30th. 2019.***

## **Your money...**

Upon receipt, all monies paid for these trips are placed in a specific 'client trust account' where it cannot be drawn by us until after completion of the tour. This is in accordance with EU Directives and ensures that your money is safe in the unlikely event of corporate failure by Geo Supplies.



## **What happens next?**

As soon as we are in a position of confirming that the trip will run - we will let you know. You will then be free to start making your own travel plans and to take advantage of any early deals on train/air tickets.

Please don't make any such arrangements until we have been in touch with you.

***Also see information contained in our 'Residential Field Trips 2019'***