

Devon School English, Paignton, at the heart of the English Riviera Geopark.

International Geoparks Pre-Conference course.

Geological visits and excursions as part of the programme – notes by Nigel Heritage.

Our Geopark specialist guides:



Nigel Smallbones. Dip Hert Int.

Retired Ranger and Manager of Berry Head NNR and SSSI for 27 years. Studied the Geology of Berry Head and Torbay. Interpreted the Geology through guided walks, displays and educational field trips.



John Risdon

John's great love is the study of Devon's heritage, namely its geology, geography and history and how all three become as one in what we call The English Riviera Geopark. John states how the greatest reward and joy he has had has been in working with people from many different walks of life and learning through them. Walking and exploration has always been a fundamental way of life in both enjoyment and learning about our wonderfully diverse world and he looks forward to being able to share his knowledge and enthusiasm for the world's only urban geopark with you, during your stay in Torbay.

Afternoon excursions week one, beginning Monday 12 September :



Saltern Cove, Goodrington Sands and Waterside:-

Showing Upper Devonian (Goniatite beds), Lower Devonian staddon facies of the Meadfoot Group, richly fossiliferous. Also uncomfortable contact between Lower Devonian and overlying Permian Beds.



Berry Head National Nature Reserve:-

A large headland of Devonian Limestone reaching a height of 60metres above sea level. Sea level changes can be observed as well as wave cut platforms on the cliffs but also with the large quarry the structure of the limestone with examples of red sandstone fissure dykes cut into the Devonian limestone and mark the first stages of the deposits in the Permo-Triassic period.



St Mary's Bay and Sharkham Point:-

Date to Middle Devonian period showing grey to dark grey slaty mudstone with thin bands and lenticels of limestone with shelly fauna including rare trilobites. Sharkham Iron Mine has an example of hematite replacement of the Devonian Limestones.



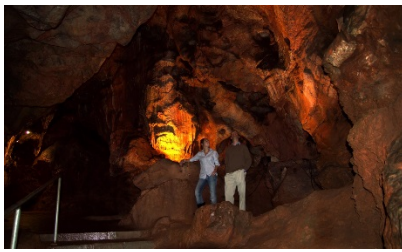
Geo-cruise stopping at Brixham and Torquay (Day trip week 1 Saturday 17th September):-

A great opportunity to observe some of the fantastic features of Torbay's Geology up close from a boat and these include natural arch and offshore rock formations. We will be stopping off at Brixham and Torquay.

Afternoon excursions week two, beginning Monday 19 September :

Hope's Nose:-

Very good exposures of the Devonian Daddyhole Limestone (Eifelian), also showing sea level changes during the Quaternary Period with a fine example of raised beach fauna.



Kent's Cavern:-

A famous and important Quaternary site with important studies in palaeontology and faunal changes during that period. Also finds of Middle Pleistocene age. The deposits within the cave have yielded numerous vertebrate remains, Cave Bear, Cave Lion and Woolly Rhinoceros.



Anstey's Cove to Oddicombe Beach:-

At Anstey's cove an opportunity to see the only significant outcrops of intrusive igneous rocks in the Torbay district but also to observe the Oddicombe Breccia's of the Permian age faulted against the Devonian limestone of Petit Tor.



Dartmoor National Park (Day trip week 2 – Saturday 24th September):-

Dartmoor is the largest expanse of unglaciated upland in Great Britain and the largest granite surface in England. It is exceptionally important for the study of these and related earth science features. There are 21 geological Sites of Special Scientific Interest (SSSIs) and approximately 35 Regionally Important Geological Sites (RIGS) on Dartmoor.

The geology of Dartmoor has had a major influence on Dartmoor's relief, soils, vegetation, farming, many of its buildings and much of its industry. The main type of rock is granite which is an igneous rock that pushed up under the surface around 280 million years ago. The heat and pressure this created altered some of the surrounding rocks and soils and as the granite cooled, mineral ore veins of copper, tin, arsenic and lead formed. Some of the granite, through the process of kaolinisation, formed china clay. This clay, together with the granite itself and the metal ores have been extracted from Dartmoor for centuries.

As the overlying layer of rocks and soils eroded away, particularly in the higher places where it was nearer the surface, the granite became exposed and formed the distinctive tors you see across the moor. The contraction of the granite as it cooled, and the action of rain and frost after it became exposed, have helped create the cracks and fissures which are a distinctive feature of these tors. (text from <http://www.dartmoor.gov.uk/>)