
30 Penton Linns

Theme: Earthquakes and folded rocks

Location

30 Penton Linns. Just beside the bridge on the Scottish side there is a small parking place. Take the path downstream [NY 433 775].

Description

Liddel Water forms a part of our border with Scotland. Downstream of Penton Bridge the river cuts through a series of dramatically bent and upended rocks.

The prominent rocks are limestones but they are within a sequence of sandstones, mudstones and coals; the pattern is repeated many times. This variation in rocks is a result of the different environments that existed one after the other 330 million years ago. Fossil shells and coral tell geologists the limestones were deposited in shallow, warm seas. The shales were mud in lakes and coastal lagoons; the sandstones, sand in rivers and deltas; the coals were once vegetation that grew in swamps on the river plains and rotted and compressed to become peat and then coal. All the rocks are from the Carboniferous Period. Just downstream from the bridge the rocks have been bent into an arch (called an anticline). Below this the angle of the rocks steepens. They are almost vertical and look like tombstones; they divert the course of the Liddel. All these rocks were once horizontal, but pressures within the Earth during successive periods of mountain building have caused the bizarre geometry they have now. Even rocks can be bent if you do it slowly enough and bury them deeply.

Like many Northern oak woodlands, Penton Woods bursts into life in spring with carpets of bluebells and white-flowered wild garlic – a heady combination of colours and scent. Later, as the early flowers fade and wither, the wood is dominated by the dense bracken undergrowth.

Photographs

(Photo 30-1) 30 Almost vertical beds of Carboniferous limestone in the Liddel Water.

(Photo 30-2) 30 Penton Linns.



(Photo 30-1) Almost vertical beds of Carboniferous limestone in the Liddel Water.



(Photo 30-2) Penton Linns.