

## Throstle Nest, Silsden



STATUS: Local Geological Site

OTHER DESIGNATIONS:

COUNTY: West Yorkshire

DISTRICT: Bradford

OS GRID REF. SE 038 468

OS SHEET 1:50,000 Landranger 104 Leeds and Bradford

OS SHEET: 1:25,000 Outdoor Leisure 21 South Pennines

BGS Sheet 1:50,000 Geological Sheet 60 Bradford (Solid and Drift Edition)

FIRST DESIGNATED by West Yorkshire RIGS Group in 1996

DATE OF MOST RECENT SURVEY January 2009 by West Yorkshire Geology Trust

SCIENTIFIC INFORMATION produced by Neil Aitkenhead

DESIGNATION SHEET UPDATED August 2009

### SITE DESCRIPTION:

The site runs along the Bracken Hill Gill in a wooded valley, exposing Upper Carboniferous (Namurian) mudstones, clays and sandstone beds which give important information about the environment of deposition of the rocks.

### HISTORICAL ASSOCIATIONS:

Green and Russell recorded in 1878 that the brook between Silsden and Throstle Nest contained fossiliferous shales with earthy limestones (p70). The site contains the original exposure of the Marchup Marine Beds where *Anthracoceras glabrum* and *Cravenoceratoides bisati* were collected. Specimens collected from this site in the 1920s enabled W. S. Bisat to describe the goniatite succession in the Arnsbergian (E2) Stage of the Namurian Epoch.

### EDUCATIONAL VALUE:

The data provided above may enable the visiting student to see for themselves the evidence for a changing palaeoenvironment from the abandonment of a river delta with consequent soil development and plant colonisation and growth followed by marine flooding with mud deposition containing marine organisms.

A 'K (potassium)-bentonite' clay band provides evidence of distant volcanic activity and consequent ashfall into this marine environment.

The site also illustrates how the rapidly evolving ammonoids (formerly goniatites) found in marine bands are used in the zoning and correlation of Namurian and Westphalian rock successions.

### AESTHETIC CHARACTERISTICS:

In the last 10 years the lower section of the LGS has been affected by tipping from a small, family-run waste-recycling plant which runs along the west side of the valley above the stream. There is much litter in the stream bed.

### ACCESS AND SAFETY:

Although footpaths pass nearby the site is located on private land. This is an important scientific site and unauthorised collecting is prohibited.