

COUNTY: SHROPSHIRE

SITE NAME: TEME BANK

DISTRICT: SOUTH SHROPSHIRE

SITE REF: 15WHZ

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended

Local Planning Authority: SHROPSHIRE COUNTY COUNCIL, South Shropshire District Council

National Grid Reference: SO 506744–SO 512741      Area: 4.4 (ha.) 10.9 (ac.)

Ordnance Survey Sheet 1:50,000: 137      1:10,000: SO 57 SW

Date Notified (Under 1949 Act): 1953      Date of Last Revision: 1963

Date Notified (Under 1981 Act): 1990      Date of Last Revision: –

Other Information:

Site boundary alteration (extension and deletion).  
Part of the site is common land.

Description and Reasons for Notification:

The rocks which outcrop along this SSSI are of international significance as stratotypes within the Upper Silurian (approximately 410 million years old) and contain a very important fossil fauna.

At the Whitcliffe are international stratotype sections for the Ludfordian Stage of the Silurian System, including also the basal stratotype sections for the Upper Leintwardine Beds, Lower Whitcliffe Formation and Upper Whitcliffe Formation. Calcareous siltstones have an abundant shelly macrofauna and microfauna. Low diversity conodont and palynomorph assemblages occur in the Lower and Upper Whitcliffe Formations.

The arthropod fauna at Whitcliffe is not known, at the specific level, elsewhere in the Welsh Borderland Silurian. This locality has produced many fine specimens including the type specimens of *Pterygotus (Curviramus) lightbodyi*, *P. denticulatus* and *Carcinosoma harleyi*. This is a key locality for Ludlow arthropods.

At Ludford Lane Corner the basal stratotype of the Downton Series of the Silurian System is exposed. The most important sections are the Downton Castle Sandstone and the type locality of the Ludlow Bone Bed. The site shows the transition from the marine Upper Whitcliffe Formation (with shelly microfauna), through the residual, phosphatic Ludlow Bone Bed with extensive fragmentary fish remains to the marginal marine/non-marine Downton Castle Sandstone, containing a very low diversity macrofauna and diverse spore microflora.

Ludford Lane Corner is an important site for studies of ancient arthropods (eurypterids) and fish of Silurian age.

Fossil remains of eight eurypterid species have been found here in the Downton Castle Sandstone, and this is the type locality for three of those species. The forms found here are part of a typical Welsh Borders eurypterid fauna, which is distinct from other faunas worldwide.

The Ludlow Bone Bed marks the first appearance, in any numbers and diversity, of fossil 'fish'; for many years it has been taken to mark the earliest appearance of fossil vertebrates in the rock stratigraphic record. Five species of thelodonts occur here, and the site is the type locality for one (and probably two) of these. The same assemblage may be found in

New Brunswick and Nova Scotia, indicating a closer connection between the Welsh Borders and Canada, than between the Welsh Borders and Scotland in Late Silurian times. Many types of acanthodian fragments, jaws and spines are found here, and this is probably the type locality for four species described by Agassiz in the 1830s. The Bone Bed is the type locality of the aberrant cephalaspid *Sclerodus pustuliferus* (which occurs as small fragments). The gross morphology of this species has been reconstructed on the basis of two large fragments found in the sandstones overlying the Bone Bed at Ludford Lane.