

## CITATION

**WHITEADDER WATER  
SITE OF SPECIAL SCIENTIFIC INTEREST**  
Scottish Borders

Site code: 1629

NATIONAL GRID REFERENCE: NT 787568 to NT 921546

OS 1:50,000 SHEET NO: Landranger Series 67  
1:25,000 SHEET NO: Explorer Series 346

AREA: 104.83 hectares

## NOTIFIED NATURAL FEATURES

**Geological: Palaeontology: Palaeozoic palaeobotany**

## DESCRIPTION

The Whiteadder Water Site of Special Scientific Interest (SSSI) is located between Preston and Foulden in Berwickshire, north-west of Duns. The site comprises a section through the Lower Carboniferous Cementstone Group and is one of the most important palaeobotanical areas in Britain.

Cementstones exposed in the river bed scours yield a flora of unprecedented diversity for its age in an exceptional state of preservation; in most specimens, cell structures can be readily observed. There are over 40 species of ferns, progymnosperms (believed to be ancestors to the conifers), pteridosperms (seed-bearing ferns) and lycopods (ancestors of club mosses), many of which are unique to the section. The assemblage throws an important light on the earliest Carboniferous floras, which were the starting point for the rapid diversification in terrestrial vegetation that characterised the rest of the period. Particularly important are the seeds, which are the oldest known examples with anatomical details preserved, and thus vital for understanding the early evolution of this organ. All in all, this section is a palaeontological site of wide international significance.

## NOTIFICATION HISTORY

Notified under the 1949 Act as part of Tweed River SSSI: 1976 and 1978  
Small part notified under the 1949 Act as Foulden Burn SSSI: 1961 and 1972

First notified under the 1981 Act as Whiteadder Water SSSI: 16 December 1993  
Notification reviewed under the 2004 Act: 28 March 2011

## REMARKS

Measured area of site corrected (from 103.1 ha)

Most of Whiteadder Water SSSI is part of the River Tweed Special Area of Conservation (SAC), which is designated for the European habitats and species listed below:

Habitats: Rivers with floating vegetation often dominated by water-crowfoot  
Species: Atlantic salmon (*Salmo salar*)  
Brook lamprey (*Lampetra planeri*)  
River lamprey (*Lampetra fluviatilis*)  
Sea lamprey (*Petromyzon marinus*)  
Otter (*Lutra lutra*)

Most of Whiteadder Water SSSI is part of the River Tweed SSSI, which is notified for the habitats and species listed below:

Habitats: Trophic range river/stream  
Vascular plant assemblage  
Species: Atlantic salmon (*Salmo salar*)  
Brook lamprey (*Lampetra planeri*)  
River lamprey (*Lampetra fluviatilis*)  
Sea lamprey (*Petromyzon marinus*)  
Beetle assemblage  
Fly assemblage