

**CYNGOR CEFN GWLAD CYMRU  
COUNTRYSIDE COUNCIL FOR WALES**

**SITE OF SPECIAL SCIENTIFIC INTEREST CITATION**

**SHROPSHIRE/POWYS  
HEREFORD AND WORCESTER/**

**RIVER TEME  
(AFON TEFEIDIAD)**

**Date of Notification:** 1996

**National Grid Reference:** SO 121848 – SO 850525

**O.S. Maps:** 1:50,000 Sheet number:136, 137, 138, 150  
1:10,000 Sheet number:SO 18 SW, SE  
SO 56 NW, NE  
SO 17 NE, SO 66 NW, NE  
SO 27, NW, NE, SE  
SO 75 NW, NE, SE  
SO 37 SW, SE  
SO 76 NW, SW  
SO 47 SW, SE, NE  
SO 85 SW, SO 57 NW, SW

**Site area:**

English area: 417.1 ha  
Welsh area: 44.2 ha  
Total area: 461.3 ha

**Description:**

The River Teme is the second largest tributary of the River Severn, draining a hilly, predominantly rural catchment of Silurian and Devonian rocks. The notified channel is of special interest as a representative, near-natural and biologically-rich example of a river type associated with mudstone and sandstones. This type has a mostly northern and western distribution in Britain but is especially characteristic of the Welsh Marches. The Teme demonstrates a close relationship with the underlying geology. A short, upland section with nutrient-poor, relatively acidic water then changing to typically more basic and naturally nutrient-rich conditions for most of the river's length over Silurian shales and mudstone and the Old Red Sandstone strata. At its lowest section the Teme is a lowland river on soft deposits. These attributes, and the high water quality, support significant river plant, fish and invertebrate communities and otter populations. A small length of the lower River Clun is included in the SSSI for a notable species.

The Teme rises at 460 metres on Cilfaesty Hill, Powys and falls steeply to Knighton, descending 122 metres over 1.6 kilometres of the Welsh/English border. It then flows

through a more gentle landscape via Ludlow and Tenbury Wells to join the Severn just below Worcester. The river is mostly actively eroding and with many shingle bars, especially above Leintwardine. Where the river cuts through sandstone the bed is often formed of submerged rock platforms. The banks are well tree-lined with alder *Alnus glutinosa*, with some willow *Salix* spp. stands.

There are extensive areas of rough grassland and wet flushes dominated by mosses and sedges on Cilfaesty Hill Common, thereafter the adjoining land use is mostly permanent pasture, arable fields, hop-yards and orchards. Parts of the river run through deciduous woodland, mainly of oak *Quercus* spp. and ash *Fraxinus excelsior*, some of which occurs in steep ravines. Little flood plain wetland has survived, though some early river engineering works have left cut-off meander loops which have developed marsh vegetation.

### Geology and Topography

Near to its source the young river drains an upland area based on Silurian siltstones, the bedrock geology being the dominant influence on the river bed. Numerous peaty flushes and several small moorland tributary streams join the river here as it passes through a small, steep-sided rocky gorge. The Ring, an active land slip, located on Cilfaesty Common, deposits silt and gravel into the channel which has a locally enriching effect on the nutrient status of the waters. After leaving Cilfaesty Hill the Teme flows through the narrow valley of Cwm Gwyn to Felindre and from there on to a wider floodplain. Downstream from here the river shows a variety of features such as back channels, storm flow channels and cut-off pools.

Down to Brampton Bryan the rocks are predominantly shales and mudstone of neutral base status but below this they change to more calcareous types and sandstones. Devonian Old Red Sandstone is the bedrock from Downton to Knightwick, with Triassic Mercia Mudstone from there to the confluence. From Felindre down to Leintwardine the river has a well developed pool and riffle system, with a cobble and pebble river bed. There are also extensive lateral gravel banks. After Downton gorge and past Ludlow, submerged sandstone rock platforms become a feature. The lowest reaches near to Worcester traverse clays and silts to give a lowland and mature character to the river.

Such variations in geology, flow and substrate give rise to similarly diverse river plant communities and associated animals, ranging from species-poor upland spate types, to those more characteristic of slow flowing, alluvial rivers.

### Flora

The highest section of the river has many small falls and pools with a good cover of the moss *Amblystegium tenax*, along with other bryophytes such as the liverwort *Marchantia polymorpha* and the moss *Fontinalis squamosa*. A small side pool supports the stonewort *Chara vulgaris* var. *vulgaris*. Characteristic higher plants in these upper stretches are round-leaved water crowfoot *Ranunculus omiophyllus* and intermediate water-starwort

*Callitriche hamulata*, with reed canary grass *Phalaris arundinacea* as a marginal species. There are also algal communities covering the pebble and small boulder strewn river bed throughout its length, with various species of filamentous green algae and the distinctive red alga *Hildenbrandia rivularis*, the latter reflecting the high water quality.

With an increase in the calcareous influence between Knighton and the Clun confluence beds of the water crowfoots *Ranunculus fluitans* and *R. penicillatus* v *pseudofluitans* appear. The outcropping of the Lower Red Sandstone around Ludlow allows the river to cut deeply into the bedrock with a subsequent change in the aquatic flora. There tends to be one major water plant community in the lower reaches, with the river water crowfoot *Ranunculus fluitans* dominating. The large alga *Enteromorpha* is found, together with pondweeds such as fennel pondweed *Potamogeton pectinatus* and perfoliate pondweed *P. perfoliatus*. Vigorous stands of the branched bur-reed *Sparganium erectum* occur as a marginal species, along with water plantain *Alisma plantago-aquatica* and water figwort *Scrophularia auriculata*.

The river banks between Tenbury Wells and Knightwick are often dominated by dense stands of comfrey *Symphytum officinalis*, with some areas suffering invasion from the alien Himalayan balsam *Impatiens glandulifera*.

### Mammals

The otter *Lutra lutra* has well established populations on the Teme, the stronghold being between Ludlow and Knighton, but they are found all along the river from Cwm Gwyn to Powick. Mink *Mustela vison* are also reported to be widespread in the catchment.

### Invertebrates

The Teme holds a good population of Atlantic stream crayfish *Austropotamobius pallipes*. The extensive shingle shoals hold a particularly interesting and rare beetle community, with some 17 species being recorded. Of these, *Normandia nitens* is classed as vulnerable, with *Macronychus quadrituberculatus* being nationally rare. The nationally scarce beetles *Riolus subviolaceus* and *R. cupreus* are found in the channel, with the nationally scarce carabid beetle *Bembidium semipunctatum* occurring on the banks. The SSSI also holds a population of the freshwater pearl mussel *Margaritifera margaritifera*, a rare and specially protected species.

### Breeding Birds

The bird community is typical of that found along medium to fast flowing rivers. The dipper *Cinclus cinclus* is to be found in almost all the rocky sections together with the grey wagtail *Motacilla cinerea*, though the latter species is equally at home on the silt banks of the lower reaches. Both kingfishers *Alcedo atthis* and sandmartins *Riparia riparia* readily nest in the eroding banks which the river produces as it meanders, and pairs of common sandpipers *Tringa hypoleucos* occur on the shingle bars above Ludlow. There are scattered records of goosander *Mergus merganser*.

## Fish

The River Teme has long been recognised as a quality salmonid and coarse fishery. The fish communities strongly reflect the ecological changes in the river as it descends the catchment.

The lower and middle reaches have eels *Anguilla anguilla*, dace *Leuciscus leuciscus*, barbell *Barbus barbus*, bream *Abramis brama*, perch *Perca fluviatilis*, roach *Rutilus rutilus* and chub *Leuciscus cephalus*. The latter species is typical of the slow and deep flows of the lower and middle river and is found upstream as far as Ludlow, whereas the brown trout *Salmo trutta* is found most commonly above this point. Atlantic salmon *Salmo salar* and grayling *Thymallus thymallus* are also present up to the weir at Buckton. Brook lamprey *Lampetra planeri*, stone loach *Nemacheilus barbatulus* and bullhead *Cottus gobio* can be found in the fast and rocky stretches, though bullhead and stone loach do occur low down the river at Knightwick. Bullheads occur even in the very shallow and fast flows on the open hill near the source. Sea lamprey has been recorded on the lowest reaches of the Teme.

Of particular conservation interest are the records of the very rare twaite shad *Alosa fallax* in the very lowest reaches of the Teme. This may represent an extension of the spawning ground from the Severn, which is one of only four confirmed breeding sites in the UK.

## Remarks:

The site supports the following species covered by Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna:

Atlantic stream crayfish *Austropotamobius pallipes* – Annex II and V  
Common otter *Lutra lutra* – Annex II and IV  
Atlantic salmon *Salmo salar* – Annex II and V  
Bullhead *Cottus gobio* – Annex II  
Twaite shad *Alosa fallax* – Annex II and V  
Brook lamprey *Lampetra planeri* – Annex II  
Sea lamprey *Petromyzon marinus* – Annex II  
Grayling *Thymallus thymallus* – Annex V  
Freshwater pearl mussel *Margaritifera margaritifera* – Annex II and V

Otter, Atlantic stream crayfish, and freshwater pearl mussel are also listed in Schedule 5 of the Wildlife and Countryside Act 1981, as amended.

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