North flank: Harptree and Smitham Hill

Parking is available at Harptree Woods [ST 557 541].

The picturesque villages of East and West Harptree are located at the base of the northern side of Mendip. Between the two villages lies Harptree Combe, a narrow gorge designated a Site of Special

Scientific Interest (SSSI), which is easily accessible along footpaths from either village. Harptree Combe [118] [ST 56157 55953] is incised into the Triassic Dolomitic Conglomerate. This rock, made up of cobbles of Carboniferous limestone and sandstone, was deposited at the mouth of a deep Triassic valley, which can be traced back westwards to Long Wood near Charterhouse. There are many good exposures where the rock can be examined. The rounded nature of the cobbles show that they had been transported some distance before they were incorporated within the conglomerate. To the north, the Dolomitic Conglomerate becomes thinner and passes laterally into the fine-grained Mercia Mudstone, deposited farther out into the basin to the north of the Mendips.

Locally, manganese and zinc were mined from veins in the conglomerate, and there are signs of the old mine workings within the gorge. The large metal pipe running across the combe is part of Bristol Water's 16 km long 'line of works'. Completed in 1847, this is a series of aqueducts and tunnels feeding water from springs around Chewton Mendip to the Barrow Gurney reservoirs.

Several distinct wildlife habitats occur within the gorge including old ash woodland, rough grassland, marshy grassland, and rocky crags. The ash woodland is very rich in woody species, and interesting ground flora plants include dog's-mercury, herb Paris, meadow saffron and yellow archangel. In the upper reaches of the combe, pedunculate oak replaces ash as the dominant tree, with old hazel coppice and drifts of bluebells in the spring. The walls of the aqueduct and bare rock faces are home to many different mosses and ferns, some of which are rare in southern England.

The top end of Harptree Combe leads up onto Smitham Hill [119] [ST 55331 54241] and East Harptree Woods. This is an area of Forestry Commission woodland, planted on an area of heathland. The heath is developed on the Harptree Beds. These rocks, of Triassic and Lower Jurassic age, are formed of chert (a rock similar to flint). The rock has been formed by replacement of the Lower Jurassic limestone and sandstone with silica (quartz). This rock is relatively impermeable and gives rise to a very boggy acidic soil.

Smitham Hill, as its name suggests, was also an important lead and zinc mining area. On top of the hill is the Smitham Chimney [120] [ST 55416 54612], the last old lead smelting chimney still standing on Mendip. The chimney was built in 1867 by a group of Cornish engineers, who, as at Charterhouse, came to revitalise the old worked out lead mines and to re-smelt the old slag heaps. They set up the East Harptree Lead Works Company in 1867, but the venture closed in 1875.

The earthworks of the mine buildings, the furnace, flues and reservoirs can still be seen, but all the other buildings were demolished in 1876 except the chimney. This fell into disrepair but was restored by the Mendip Society in the early 1970s.

The most extensive lead workings were around Gibbets Brow [121] [ST 54321 55052] on the Compton Martin–Castle of Comfort road. The lead occurs mainly as veins of galena in the Carboniferous Limestone known as rakes.

These were worked at the surface, creating the pockmarked gruffy ground. In about 1674 lead miners broke into Lamb Leer Cavern, containing one of the largest chambers on Mendip.

Between here and the Miners' Arms, several large sinkholes occur. These have been formed by the dissolution of Carboniferous Limestone at depth, followed by collapse and subsidence of the cover rocks. Several fine examples occur south of Eaker Hill and can be seen from the road between the Castle of Comfort and Lamb Leer. The largest is the Devil's Punch-Bowl, south of Swallet Farm [122] [ST 54364 53785], an impressive depression over 50 m in diameter and

almost 20 m deep.

Figures

(Figure 110) Aerial photograph North Flank: Harptree and Smitham Hill.

(Figure 111) This aqueduct, part of the Bristol Water's 'line of works' takes water from springs around Chewton Mendip to the water treatment plants at Barrow Gurney.

(Figure 112) The drystone walls on Smitham Hill contain large blocks of silicified Harptree Beds chert, with many lichens and small ferns thriving on the lime mortar.

(Figure 113) Smitham Chimney, the last remaining lead-smelting chimney on Mendip, restored in the 1970s by the Mendip Society.



(Figure 110) Aerial photograph North Flank: Harptree and Smitham Hill.



(Figure 111) This aqueduct, part of the Bristol Water's 'line of works' takes water from springs around Chewton Mendip to the water treatment plants at Barrow Gurney.



(Figure 112) The drystone walls on Smitham Hill contain large blocks of silicified Harptree Beds chert, with many lichens and small ferns thriving on the lime mortar.



(Figure 113) Smitham Chimney, the last remaining lead-smelting chimney on Mendip, restored in the 1970s by the Mendip Society.