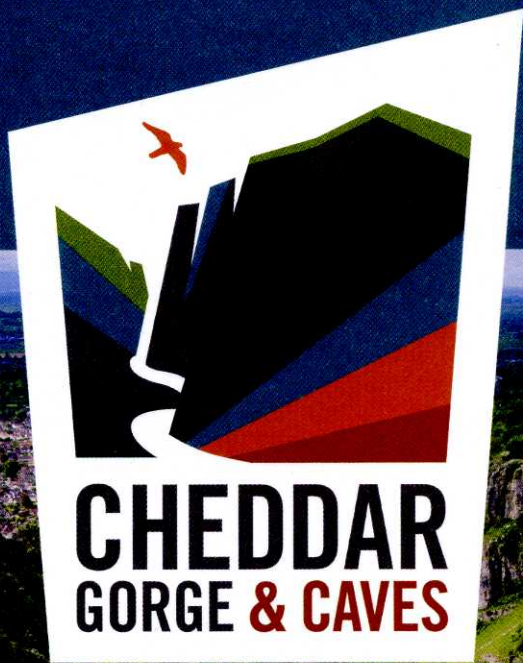
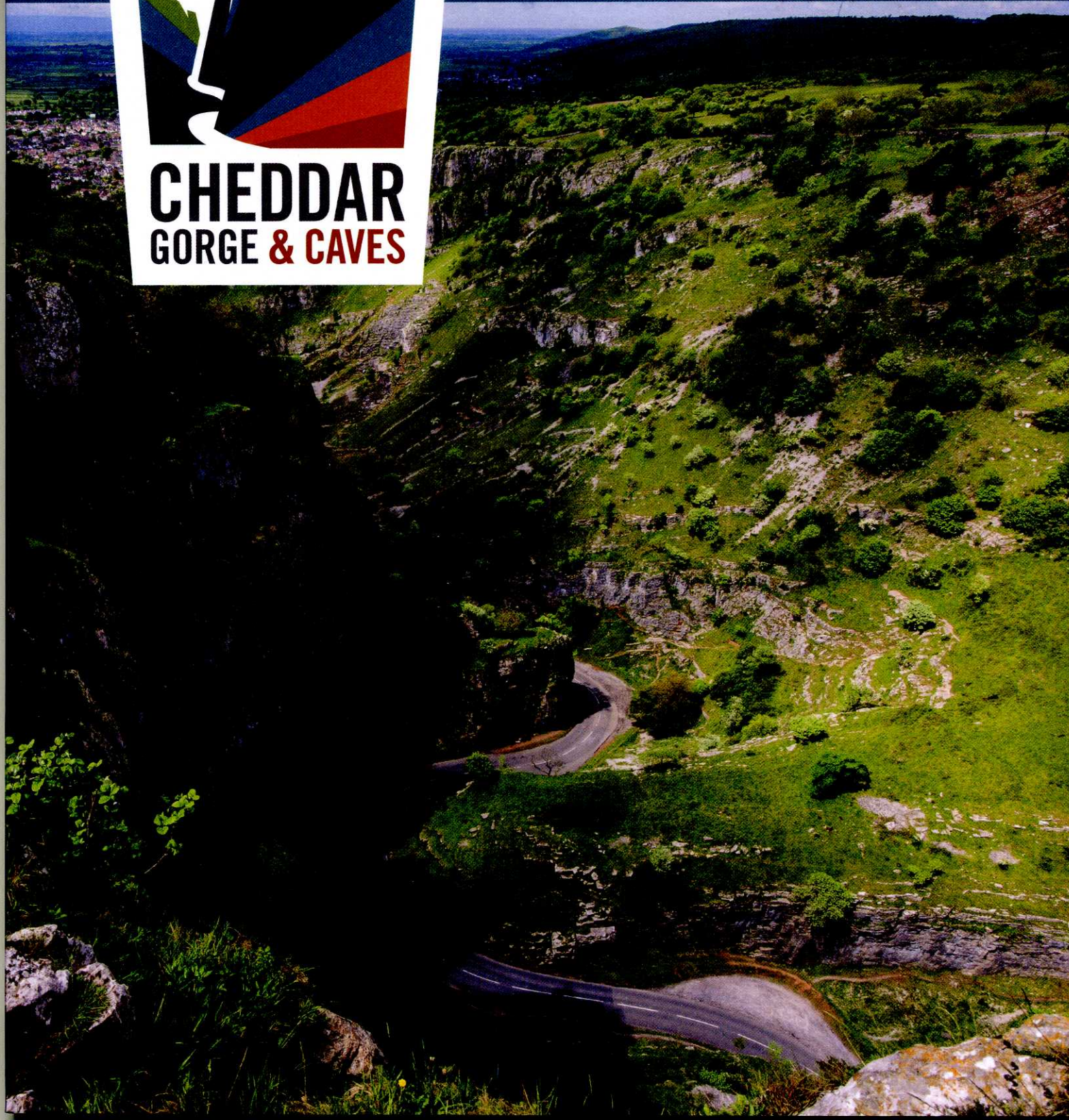


GUIDEBOOK



CHEDDAR
GORGE & CAVES



When plants and creatures living in the sea died, their shells and skeletal remains, that contained calcium carbonate, sank to the sea floor. Over time, the remains built up forming a layer of karst carboniferous limestone hundreds of metres thick.

Great earth movements, such as earthquakes, forced sections of rock upwards, to create what we now know as the Mendip Hills. This exposed land was weathered and eroded to such an extent that the old red sandstone beneath the limestone was also exposed to the elements.

During the Triassic Period (251-201 million years ago) many of the valleys on the edges of the hills became filled with the eroded sandstone and limestone. This became a cement-like mixture (dolomitic conglomerate) when combined with water, containing calcium and magnesium salts. As a result, the gaps between the hills were filled in, transforming the Mendip Hills into a levelled plateau.

In the Jurassic Period (200-145 million years ago), the sea returned once more, depositing younger rocks on top of the limestone and dolomitic conglomerate. Once again, overtime, the sea retreated and these younger rocks were worn away by erosion.

This was then followed by the Pleistocene Epoch (last one million years), when ice ages occurred in Britain with sheets of ice reaching as far south as the Mendips. These were separated by interglacials (warmer periods of time). During the interglacials, the permafrost (ground that remains at or below freezing point) and any ice held in fissures between the limestone rock and layers would melt, releasing boulders and gravel along with it.

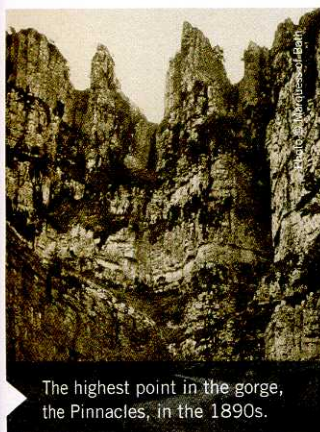
This process occurred after each ice age and gradually carved out a river bed known today as the River Yeo. Eventually, the river eroded vertically downwards into the rock, cutting deeper into the land to reach sea level resulting in the 450ft, three mile long gorge we see today. The River Yeo then sank to the lower reaches of Gough's Cave leaving the gorge as a dry valley. From time to time, the River Yeo will rise during, or following, heavy rainfall flooding Gough's Cave.

The River Yeo river system is the largest in Britain and rises through 18 separate springs. Its source is a spring at Charterhouse at the top of the gorge and it emerges around 45 metres below the entrance to Gough's Cave.

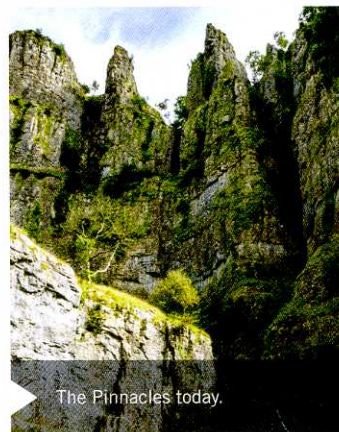


Left: The River Yeo (shown here above ground) is one of the largest underground rivers in Britain.

Below: The white arrow watermark on Gough's Cave wall, just past the Skeleton Pit, indicates the height flood water will rise to before it flows out of the cave entrance.



The highest point in the gorge, the Pinnacles, in the 1890s.



The Pinnacles today.





Nature's Stage

Cheddar Gorge is well-known for its glorious views and is a popular tourist destination made accessible by the road (first constructed in 1801) which follows the course of an ancient river. Now known as Cliff Road, this part of the B3135 was widened in the 1970s.

It is also a popular destination for cyclists providing a challenge with a 16% maximum gradient as mentioned in Simon Warren's *100 Greatest Cycling Climbs: a Road Cyclist's Guide to Britain's Hills*.

To truly appreciate the geography of the gorge, you must complete the Cliff-top Walk for the most spectacular views. To the north, you'll see the windswept hilltop Mendip Plateau 900ft above sea level. It runs for 22 miles east to west and three to five miles north

to south. If you look to the south you'll see the flat, lush water meadows of the Somerset Levels, an area reclaimed from the sea by the Abbots of Glastonbury.

Looking out across the landscape you will notice a circular disc of water. This is Cheddar Reservoir also known as Axbridge Reservoir. It opened in 1938 to supply Bristol Waterworks with water channelling the river west of Cox's Mill.

If you look in a southerly direction, you can see Glastonbury Tor. If you then look in a westerly direction you will see Brent Knoll and on a clear day you may even see across to the Bristol Channel and Wales beyond.

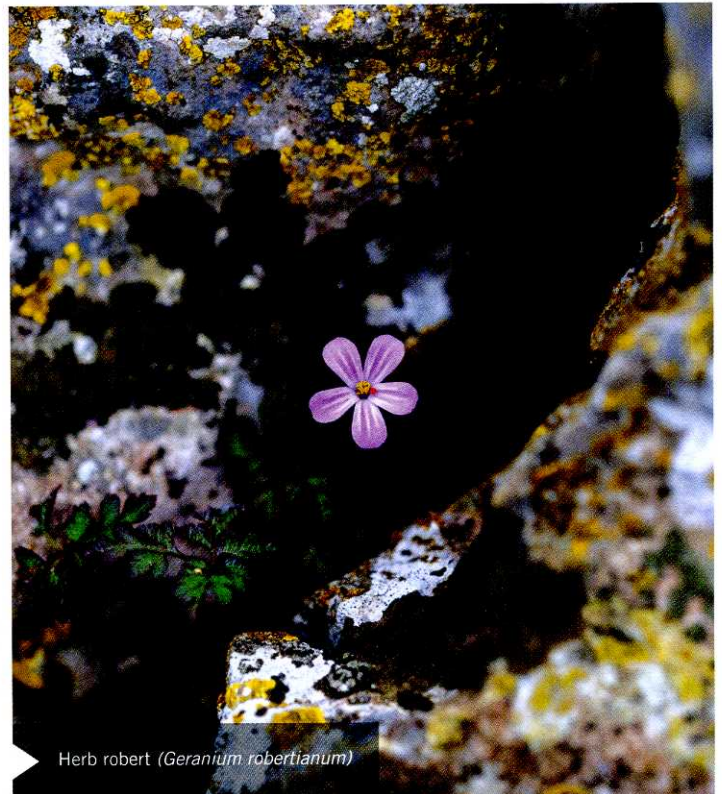
Flora of the gorge

Cheddar Gorge supports an abundance of flora; from lichen, fungi and moss to flowers like the early purple orchid, the rare Cheddar pink and an array of trees including hazel, ash, yew and oak.

Many of the bare rock faces are covered with colourful lichens that are in fact a combination of two different organisms: fungus and algae. Along the rock fissures and surfaces, where a little more moisture is present, it provides humid conditions ideal for tufting and carpeting mosses.



Cheddar pink
(*Dianthus gratianopolitanus*)



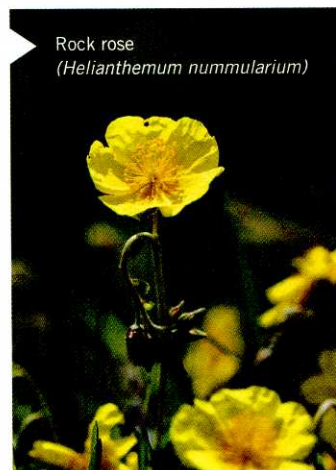
Herb robert (*Geranium robertianum*)



Common orange lichen
(*Xanthoria parietina*)



Adder's-tongue fern
(*Ophioglossum*)



Rock rose
(*Helianthemum nummularium*)



Common dog violet
(*Viola riviniana*)



Birds-foot trefoil
(*Lotus corniculatus*)



Speedwell (*Veronica chamaedrys*)



Sparrowhawk
(*Accipiter nisus*)



Raven
(*Corvus corax*)

Birds

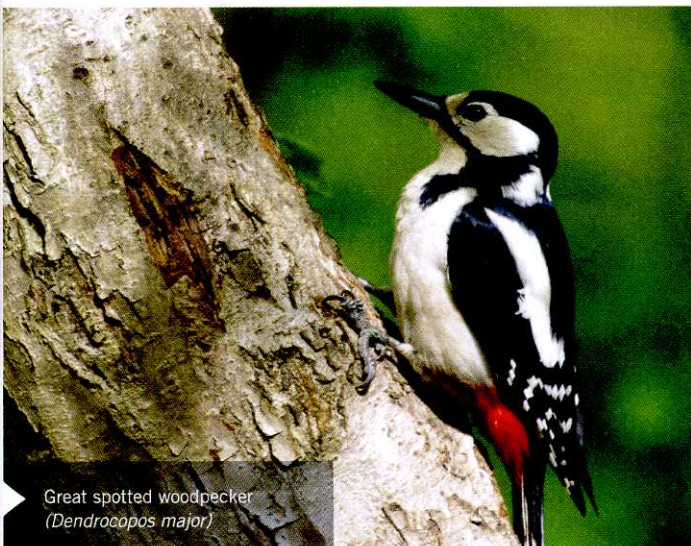
There are many different types of birds found roaming the area that is the gorge. Woodland birds are often heard as you walk up Jacob's Ladder with sightings of robins, great tits, goldfinches, treecreepers and great spotted woodpeckers. Reaching the cliff-top and grassland; stonechats, skylarks and linnets may be seen. At the top of the gorge look out for ravens as well as impressive birds of prey such as buzzards and sparrowhawks. You may even spot a kestrel hovering high in the sky scanning the ground for prey.



Stonechat
(*Saxicola rubicola*)



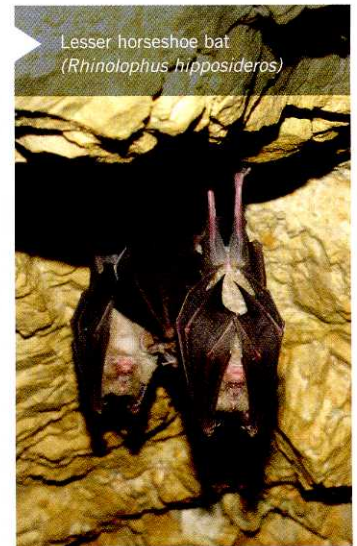
Common kestrel
(*Falco tinnunculus*)



Great spotted woodpecker
(*Dendrocopos major*)

Bats

Cheddar caves are home to lesser and greater horseshoe bats earning their name from their horseshoe-shaped noses. They spend all day sleeping in the warm, dark caves, hanging upside down from ledges. Then at dusk, they fly and hunt for food; their diet mainly consisting of insects. The caves at Cheddar Gorge house 3% of the UK's greater horseshoe bat population and a further 10 species have been recorded.



Lesser horseshoe bat
(*Rhinolophus hipposideros*)