
The Ice Age

The 'Ice Age', which began about 2.6 million years ago, actually comprises a series of very cold 'glacial' periods alternating with shorter, warmer periods known as 'interglacials'. We are currently in an interglacial which began about 10 000 years ago. During the most severe glaciation, about 450 000 years ago, an ice sheet extended as far south as the River Thames. Although the Mendips lay south of the maximum glacial advance, the climate at the time would have been very cold.

Under this periglacial climate the Mendips would have been much like northern Canada or Siberia, with long very cold winters, and brief warmer summers. The ground would have been permanently frozen (a condition known as permafrost) with snow cover for much of the year.

During the short warm summers, melting of the snow-pack generated brief meltwater floods. The spectacular limestone gorges and dry valleys that are such a feature of the Mendip landscape were carved by these torrents of water. When the climate warmed in the following interglacial period, underground drainage through the limestone was renewed, leaving the valleys and gorges high and dry. Each successive periglacial episode caused renewed incision. The wildlife at the time was adapted to the cold conditions, and animal remains found at several cave sites across the area include cave bear, bison, reindeer, wolf, brown bear, wolverine and arctic fox.

Material washed out from the gorges was deposited on the adjacent lowlands. Large spreads, or 'fans', of poorly sorted gravel, sand and silt occur in the dry valleys and at the outlets of the major gorges: these are shown as 'head' on the geological map. The best developed fan is at the mouth of Burrington Combe, but much of Cheddar is also developed on head.

Extensive scree deposits in Cheddar Gorge, Burrington Combe and Ebbor Gorge were formed by repeated frost shattering of the rock, splintering it into fragments that accumulated at the bottom of the cliffs.

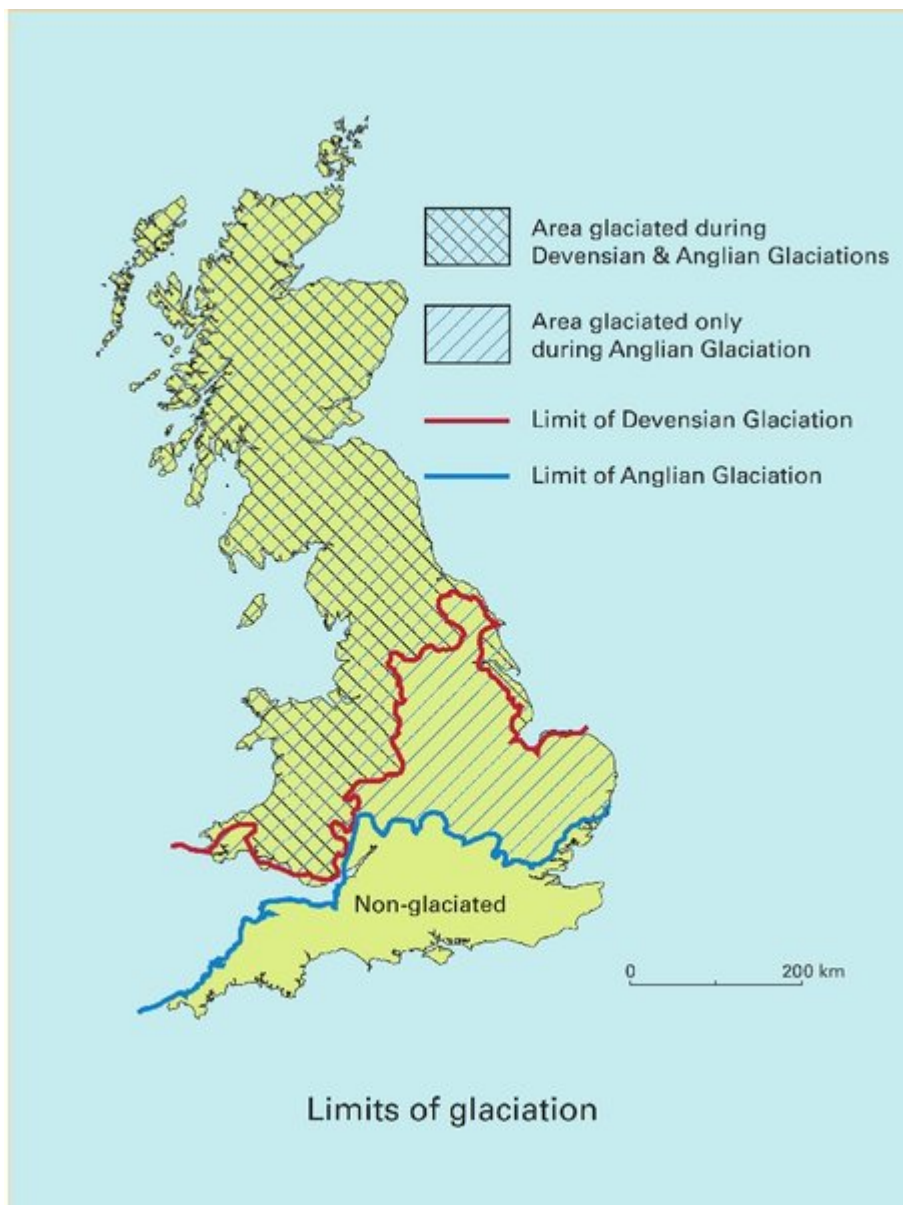
Much of the Mendip plateau is covered with a thin layer of fine-grained yellow-brown wind-blown silt. This loess is derived from glacial rock-flour, which has been blown here during the last glaciation. It masks the underlying limestone and gives rise to more acidic soils on which plants, such as gorse, that do not tolerate lime can thrive. Since the end of the last glacial, 10 000 years ago, extensive deposits of alluvium and peat have built up on the Somerset Levels.

Figures

(Figure 11) Limits of glaciation

(Figure 12) A diorama of ice-age life in the Mendips.

(Figure 13) Cave bear.



(Figure 11) Limits of glaciation



(Figure 12) A diorama of ice-age life in the Mendips.



(Figure 13) Cave bear.