

In Geological History

The modern Connecticut River spans millions of years. Its story unfolds from the many types of bedrock that supports its sandy shores, to the creatures that swim in its water and live along its banks. We can appreciate how its cultural history shapes our lives today

There are many fascinating aspects of the river and its valley that we can learn about, if we take just a few minutes.

The Connecticut Valley originated about 220 million years ago, late in the Triassic Period. The Earth's crust in southern New England was stretched, creating a huge fault system that ran north and south. Over the next 40 million years, the land west of the faults sank slowly downward. Lava erupting from deep fissures covered the valley floor three times. The climate was very warm, but the amount of rainfall alternated between moist and semiarid over periods extending for hundreds of years. During the wet periods, in the early Jurassic, Luxuriant forests of conifers, cycads, horsetails and ferns grew in the valley. Judging from the thousands of fossil tracks found in the valley, dinosaurs and other more primitive reptiles were common. The dinosaurs ranged from turkey-sized fabrosaurids to 20 foot long predators related to Diophosaurus.

The modern Connecticut River developed between 13,000 and 10,000 years ago, after the receding of the last ice sheet, the late Wisconsin Glacier, to cover New England. During the last glaciation (25,000 to 18,000 years ago), a continental ice sheet gouged its way across the bedrock of the Connecticut Valley and covered all of New England with ice more than a mile thick. During the retreat of this great ice sheet through New England (18,000 to 13,000 years ago), meltwater streams issuing from the waning glacial ice deposited sands and gravels as temporary dams impounding glacial lakes. Glacial Lake Hitchcock occupied the Connecticut River Valley between 15,000 and 11,000 years ago. The lake was as much as 15 miles in width and stretched from a glacial drift dam at Rocky Hill, Connecticut, for about 140 miles northward in the valley to Lyme, New Hampshire. Eventually, the dam broke, the lake waters drained southward to Long Island Sound, and the modern Connecticut River was established on the drained bed of glacial Lake Hitchcock. Today, carved glacial lake clays can be seen in many places in the river banks, and in other places remnant delta and beach deposits of the glacial lake lie more than 100 feet above the modern river.

As time passed and the Connecticut River cut down into the glacial lake bed, linear stream sections changed to more meandering (curving) ones. In some cases, oxbow lakes like the one at Northampton, Massachusetts, formed as river meanders were abandoned during flood events.

Today's Connecticut River actually begins near the Canadian border in New Hampshire and travels 410 miles to Long Island Sound.