

LOCAL GEOLOGICAL SITES

ROCHFORD DISTRICT



RoG2 Hockley Woods

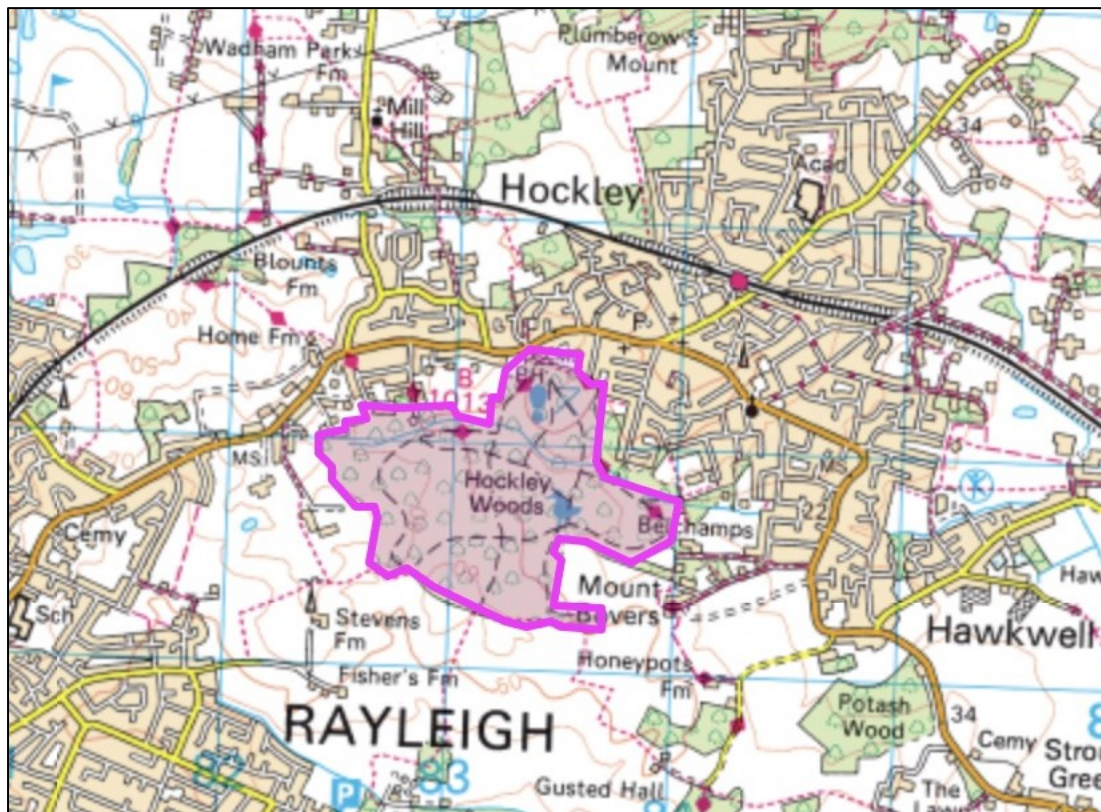
Site location: Extensive woodland south of Hockley

Grid reference: TQ 833 924

Status: Publicly accessible at all times

Summary of the geological interest:

The foundation of Hockley Woods is London Clay overlain by Claygate Beds and Bagshot Sand. The high ground of Hockley Woods is a continuation of the Rayleigh Hills and, like Hadleigh and Thundersley, the highest points are capped with patches of ancient gravel which were deposited by a northward-flowing Medway river during the middle of the Ice Age. On the highest ground there are patches of Oakwood Gravel, laid down by the River Medway perhaps as much as 700,000 years ago.



Site Assessment. Local Geological Sites (LoGS) in Essex are assessed using criteria based on DEFRA guidance. An assessment form is used which asks key questions under four value categories: scientific, educational, historical and aesthetic. This site has been assessed and qualifies under these criteria.

Scientific interest and site importance

Hockley Woods is one of the largest continuous stretches of native woodland in the east of England. London Clay underlies the Woods and is seen in the floor of a valley at the eastern end. Above this is the sandy clay of the Claygate Beds, and as the ground rises towards the west the Claygate Beds pass up into fine yellow sand of the Bagshot Beds which forms the high ground. There are many fallen trees and their upturned root plates provide glimpses of the underlying geology.

The high ground of Hockley Woods is a continuation of the Rayleigh Hills and, like Hadleigh and Thundersley, the highest points are capped with patches of ancient gravel which were deposited by a northward-flowing Medway river over 700,000 years ago. The gravel at Hockley Woods, known as Oakwood Gravel, is shown on the geological map as capping the high ground in two places on the southern boundary of the woods but it also appears to be present on the sloping ground leading away from the main car park.

Oakwood Gravel is a relatively well preserved fragment of one of the highest and oldest terraces of the Medway, part of a left-bank terrace system of a valley now submerged beneath the North Sea (Bridgland 2003). As a result of the considerable erosion that has taken place during the Ice Age these and other isolated patches of gravel on the top of the Rayleigh Hills are all that remains of these ancient river terraces. The pebbles in the gravel are mainly flint but there is also a proportion of distinctive pebbles of chert from the Weald of Kent that proves its Medway origin.

References

BRIDGLAND, D.R. 2003. The evolution of the River Medway, SE England, in the context of Quaternary palaeoclimate and the Palaeolithic occupation of NW Europe. *Proceedings of the Geologists' Association*. Vol. 114. Pages 23-48.