

Hill End Chalk Pit (Board 1)

Hill and chalk pit is a secluded green space designed as a local wildlife site and regionally important geological site (RIGS) due to its ecological and geological importance. The site features nationally rare chalk grassland and is an important site for fossil findings.

The site is owned by North Hertfordshire District Council managed in partnership with Hertfordshire County Council's Countryside Management Service (CMS). The chalk pit is situated opposite Hitch Wood, which is owned by St Paul's Warden Bury Estate and is open to the public with permissive paths to follow and enjoy.

Includes a plan of the site and how to access it.

Ecology and Geology

Hill End Chalk Pit sits on an extensive chalk scarp and was worked as a chalk pit in the early twentieth century before becoming a site of interest for geologists. Its remarkable geological history has meant different types of fossils have been found here such as ammonites, sponges and bivalves.

The site features chalk grassland, a unique, specialised and fragile habitat rich in flowering plants which provide an excellent nectar source for bees and butterflies. Furthermore, the site has woodland and scrub habitat, providing a home to a variety of birds and small mammals.

Includes:

1. Cartoon cross-section of the seafloor showing the different depths at which fossils of differing ages would have been deposited;
2. Two photos showing a Great Spotted Woodpecker and St. John's wort flower.

Community Involvement Inset

Groups of local residents are interested in the site and provide valuable voluntary support with tasks run by CMS. The Hertfordshire Geological Society is also involved with the site, helping to fund its improvement and maintenance. Its members take part in practical tasks and support educational activities.

To find out more about volunteering, attending or running educational trips, please visit the CMS website at www.hertfordshire.gov.uk/cms.

If you would like to find out more about the geology involved with a Hertfordshire Geological Society please visit www.hertsgeolsoc.org.uk.

Includes photo of the Hertfordshire Geological Society members helping to clear Hill End Chalk Pit, June 2019 taken by Haydon Bailey.

North Herts District Council acknowledges the assistance of The Curry Fund of the Geologists' Association www.geologistsassociation.org.uk.

Hill End Chalk Pit (Board 2)

Hill End Chalk Pit is a 0.5 hectare Local Wildlife Site with a great range of habitats for a compact green space, including chalk grassland. It is also designated as a Regionally Important Geological Site (RIGS) and famous for its fossils, yielding important specimens such as ammonites, sponges and bivalves.

Geology and History

The preserved fossils which can be found here today come from a "fossilised sea floor" known as the Hitch Wood Hardground, which can be traced the length of the Chiltern Hills. The Hitch Wood Hardground is part of the Chalk Rock complex and started forming approximately 90 million years ago.

Much more recently, this site was work as a chalk pit during the early 20th century. During the 1920s type specimens of the ammonites *Prionocyclus hitchinensis* and *Prionotropis cristatus* were found here by a Hitchin schoolteacher Stanley Billingham. A palaeontologist, Robert Reid, also discovered a completely new type of sponge here, which he named *Hillandia* after this locality.

In the 1950s three Hertford school boys, Richard Bromley, Jack Doyle and Christopher Wood, rediscovered the pit and started their fossil collecting careers here. To ensure the sites geology can continue to be discovered and enjoyed, the chalk face was scraped in 2019 to re-expose it.

Includes:

1. A stratigraphic column from ground level down to the Caburn Marl
 2. Images of the fossils; *Prionocyclus hitchinensis* and *Prionotropis cristatus*
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Chalk grassland

Chalk grassland isn't ecologically valuable habitat characterised by a wide variety of grasses and wild flowers growing on freely draining, nutrient poor and lime rich soil is. Wildflower species present on site, such as Common twayblade, knapweed, St John's-wort and sweet violet act as pollinators to support a diverse range of insect species.

Butterflies such as common blue, orange tip and gatekeeper frequent the area.

Includes:

1. Two photos showing; the Orange top butterfly and Common twayblade.
 2. Larger version of the Board 1 cartoon showing a cross-section of the seafloor showing the different depths at which fossils of differing ages would have been deposited.
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Fossil collecting

Fossil collecting is allowed on the spoil heaps. If ammonites, echinoids or bivalves are found please notify the Hertfordshire Geological Society secretary at: HGS_secretary@btinternet.com.

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