

Gravel Hole Geotrail – Norton-on-Tees

Distance 1.5 km (1 mile)

Time 1 hour

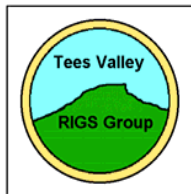
OS Explorer Map 306 - 447232

Gravel Hole is a three acre (1.3 ha) Nature Reserve, owned and managed by Tees Valley Wildlife Trust. The site is a disused sand and gravel quarry and is rich in biodiversity. Summer is the best time to visit as the area is carpeted in wildflowers and is a feast for the eyes.

Stroll around the quarry site for an hour or so and you may see over 20 species of wildflowers, including two types of Orchid; listen to birdsong and watch many colourful insects flitting among the plants.



© John Williamson Photographic



Supported through Defra's
Aggregates Levy Sustainability Fund

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Getting there by public transport

Stagecoach Bus 35 (Mon.-Sat. only) from Stockton High Street, alight at Crooks Barn Estate.

From the Norton Ring Road follow Fieldfare Lane →(L) into Crooks Barn Lane →(R) into Shearwater Lane. At the end of Shearwater Lane is a tall wooden fence. *If parking please do not block driveways.*

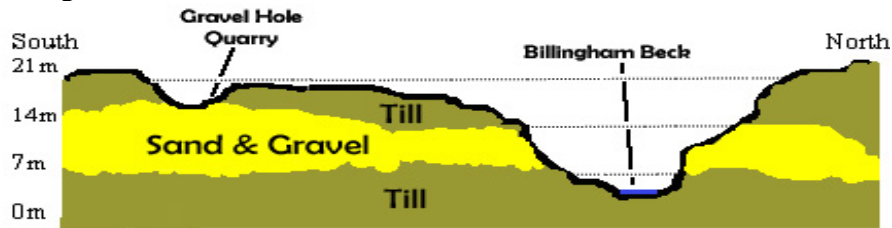
Enter through the gateway and follow the footpath (take care crossing the railway lines). This railway is on the line of the Clarence Railway, opened in 1833 as a competitor to the Stockton and Darlington Railway.

Once across the railway turn right. Follow the path diagonally until you meet the field boundary. Follow this until you come to a kissing gate.

This is the entrance to the Nature Reserve. There is a circular path around the reserve but do feel free to wander along any of the paths.

Geological and industrial history of Gravel Hole.

A typical vertical section through the near-surface ground around Billingham Beck looks like:



The workings that created Gravel Hole are in glacial deposits of sand and gravel which were formed at the end of the recent ice age, approx 12,000 years ago, together with layers of boulder clay (till). These lie on top of the base rock, which is a lime rich mudstone of the Sherwood Sandstone Series group.

In the neighbourhood sand and gravel pockets have been worked at many places. On the north side of Billingham Beck valley a borehole showed deposits of 60% sand and 30% gravel with a depth of 11 metres of minerals, with five metres of boulder clay on top. More generally the pockets have averaged 73% sand and 11% gravel, the balance being clay.

The gravel is a mixture of dolomite, sandstone and limestone with small percentages of igneous rocks, quartzite and red sandstone.

(source "Sand and Gravel Resources – Mineral Assessment Report 99 1982 ISBN 0 11 884299 4)

Sand and Gravel have been extracted in the Norton area for centuries and Gravel Hole was last quarried in the late 1960s.

The sand and gravel would have been used by the Stockton Stone and Cement Co. which was situated to the west beside the railway line near Calf Fallow Farm, on the site of the older Norton Iron Works.

The area around Gravel Hole has always been a favourite place for the local people to escape from the heavy industry around them.

Ψ **Gravel Hole extra** - further information about the industrial history of this area

Gravel Hole - Flora

The area where sand and gravel lenses are exposed is now covered in herb rich grassland. The free-draining calcareous soil here is low in nutrients and supports plants such as common centaury, yellow-wort and fragrant orchid.

Where the lenses have not been exposed on the land surface to the south of the reserve, the soil is richer in nutrients and the area covered in rough grassland.

Gravel Hole is an ideal habitat for dry grassland plants such as quaking grass, field scabious and tufted vetch.

Gravel Hole is a special place to visit for its flora at any season. Visit in spring to see the cowslips. However it is in late June and July that the best of the flora can be seen.

These are some of the other flowers to be found here during mid-summer.

BETONY (*Stachys officinalis*)

BURNET-SAXIFRAGE (*Pimpinella saxifrage*)

COMMON SPOTTED ORCHID

(*Dactylorhiza fuchsii*)

FRAGRANT ORCHID (*Gymnadenia conopsea*)

COMMON BIRD'S FOOT TREFOIL

(*Lotus corniculatus*)

FIELD POPPY (*Papaver rhoeas*)

HEMP-AGRIMONY (*Eupatorium cannabinum*)

KIDNEY VETCH (*Anthyllis vulneraria*)

TANSY (*Tanacetum vulgare*)

WHITE CAMPION (*Silene latifolia*)

EYEBRIGHT (*Euphrasia officinalis*)

FAIRY FLAX (*Linum catharticum*)

FIELD SCABIOUS (*Knautia arvensis*)

GREATER KNAPWEED (*Centaurea scabiosa*)

HAREBELL (*Campanula rotundifolia*)

NAPWEED (*Centaurea nigra*)

OXEYE DAISY (*Leucanthemum vulgare*)

SELFHEAL (*Prunella vulgaris*)

YARROW (*Achillea millefolium*)

YELLOW RATTLE (*Rhinanthus minor*)



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Ψ **Gravel Hole extra** - Websites and books for identification of flora.

Gravel Hole – Fauna

SUMMER and the reserve is buzzing with insect life and butterflies such as the Wall Brown, Common Blue and Small Tortoiseshell

There may also be the chance of seeing many types of birds including the occasional Green Woodpecker feeding in the grassland or Sand Martins flying over-head.

WINTER sees the arrival of Thrushes which feast on hawthorn berries before moving on once they have stripped the bushes. There is also the possibility of Waxwings in hard winters.

Ψ **Gravel Hole extra** – for assistance with identification of fauna