Upper Teesdale is in the North Pennines **Area of Outstanding Natural Beauty** (AONB) and Global Geopark

What is a Geonark?

The North Pennines AONB is a Global Geopark, a status endorsed by UNESCO. Geoparks are places with outstanding geology and landscape, where there are strong local efforts to make the most of Earth heritage through interpretation, education, conservation and tourism. To find out more visit www.europeangeoparks.org and www.globalgeopark.org

Moor House - Upper Teesdale National Nature Reserve (NNR)

Part of this walk, between Low Force and High Force, is within the Moor House-Upper Teesdale NNR. This large reserve stretches over parts of Co. Durham and Cumbria and contains a wide range of North Pennine upland habitats. from hav meadows and juniper woods to limestone grassland and blanket bog. For more information contact the Reserve Base on 01833 622374.



Forest-in-Teesdale



High Force is one of the most impressive waterfalls in England, where the River Tees spectacularly drops 21m from the Whin Sill rock into the plunge pool below.

The pretty woodland walk provides stunning views of the waterfall leading to its base.

The car park at High Force is an excellent base from which to explore the area. There's also a Gift Shop, open seasonally from April to October, picnic areas and toilets. Fishing and canoe permits for a section of the River Tees are also available to purchase from here. Car parking and admission charges apply.



The North Pennines is one of England's most special places a peaceful, unspoilt landscape with a rich history and vibrant natural beauty. In recognition of this it is designated as an Area of Outstanding Natural Beauty (AONB). The area is also a Global Geopark - an accolade endorsed by UNESCO.

A lovely 4 to 5-mile (6.5 – 8km) walk, starting from Bowlees Visitor Centre or High Force car park in Upper Teesdale, exploring landscape, geology, history and wildlife.

North Pennines AONB Partnership www.northpennines.org.uk +44 (0)1388 528801 info@northpenninesaonb.org.uk





The AONB Partnership has a Green Tourism award for its corporate office



Please ask us if you would like this document summarised in another format.

> info@northpenninesaonb.org.uk 01388 528801







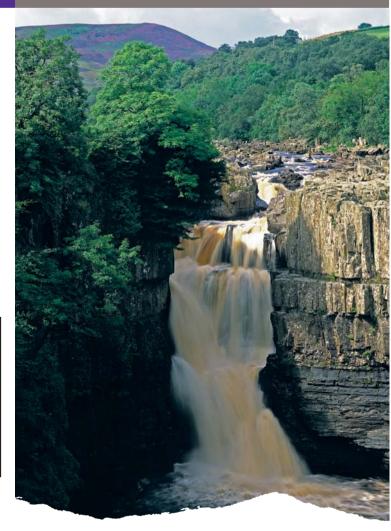
Supported by:



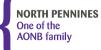
Lord Barnard's Raby Estates

High Force and **Bowlees Geotrail**

Whinstone, waders & wild flowers











Welcome to Upper Teesdale in the North Pennines AONB & Global Geopark

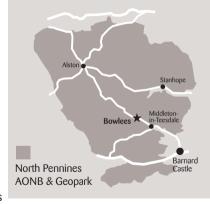
This beautiful landscape has been shaped by millions of vears of Earth processes and thousands of years of people living and working here. Part of the area is within the Moor House-Upper Teesdale National Nature Reserve, which is home to some of the UK's rarest plants and most iconic upland birds.

This circular walk, from Bowlees Visitor Centre or High Force car park, will introduce you to some of the special features of the landscape around High Force and Low Force waterfalls. You'll discover rocks with dramatic origins, ice age features, ancient settlements, lead mining heritage and wonderful wildlife.

Walk length/time: Approx. 4-5 miles (6.5-8km) (depending on High Force route options) with 120m of ascent, taking about $2\frac{1}{2}-3$ hours

Start/finish: Bowlees Visitor Centre NY 907 282 or High Force car park NY 885 286

Terrain: Public rights of way and permissive paths with gates and stiles, and short stretches of minor road. This



walk is mainly on paths and tracks through fields and beside the River Tees. A Please take care crossing the road and near the cliff edge just east of High Force. The route is gently undulating but with a few short, steeper ascents and descents. Walking boots or strong shoes are recommended. Please keep to paths, leave gates as you find them and keep dogs under close control.

Public transport: For timetable information call Traveline on 0871 200 2233 (www.traveline.info)

Facilities: Bowlees: visitor centre, café, information, toilets, parking, e-car charging point, activities (www.visitbowlees.org.uk)

High Force: hotel, parking (charges apply), gift shop, toilets, path to base of High Force (www.highforcewaterfall.com)

Useful maps:

Ordnance Survey

1:50 000 Landranger

1:25 000 Explorer

91 Appleby-in-Westmorland 92 Barnard Castle & Richmond **OL31 North Pennines**

Rocky foundations

Life in the tropics

The rocks that make up most of the North Pennines are layers of limestone, sandstone and shale. They formed around 320 million vears ago, when this area lav near the equator. Limy ooze, sand and mud in tropical seas and deltas hardened into the rocks we see today.

Most of the walls and buildings you'll see are made of sandstone

Ancient tropical delta

Molten rock

A very different rock layer forms Teesdale's most dramatic landscapes. This is the Whin Sill, which you'll see at Low Force and High Force. It formed 295 million years ago when molten rock solidified underground to become dolerite (or whinstone). It is now exposed at the surface after millions of years of erosion.

Formation of the Whin Sill

A landscape for people and wildlife

A working landscape

People have lived in the North Pennines for 10.000 years and have left tantalising traces for us to discover. From prehistoric hunter-gatherers to Victorian lead miners and today's farmers. people have used the land and resources around them. Human activity has profoundly affected the landscape and continues to shape it today. This walk takes you through a working countryside of stone walls, sheep, cattle and hav meadows. Further up the dale there is quarrying and on the high moors. management for red grouse shooting.

Ruried treasure

Criss-crossing the fells are veins of lead ore and other minerals. They formed around 290 million years ago, when minerals crystallised out of hot fluids deep underground. The North Pennines is famous for its minerals, which have heen mined for centuries



Galena (lead ore)

Ice and water

Today's landscape has been shaped by ice and water. In the last ice age. 20,000 years ago, there would have been a mile of ice above you here! Ice scoured the land and dumped clay and boulders. Torrential meltwaters carved gorges like those at Low Force and High Force. The landscape continues to be sculpted by modern rivers.



Wild and wonderful

The North Pennines is fantastic for wildlife and Upper Teesdale is particularly special. As well as being important for upland birds (see overleaf), this is the home of the 'Teesdale Assemblage'. This uniquely rich association of plants includes rare arctic-alpine plants like the spring gentian. If you're here in late spring and summer look out for wild flowers, especially along the Pennine Way verges between Wynch Bridge and High Force, and in hay meadows around the route.



Bird hot spot

With its mosaic of dale and moorland habitats, the North Pennines is one of the best places in England to see the birds of the uplands. In spring and early summer the calls of wading birds - curlew, oystercatcher, golden plover, snipe, redshank and lapwing - fill the air. Upper Teesdale is particularly special as it is a vital refuge and breeding ground for the rare black grouse.



Whitewashed

to Alston

High Force view (bottom) Take the path which heads downhill from a wooden kiosk

where you pay a small charge.

You'll see that many of the buildings on this side of the River Tees are white, giving a distinctive character to much of Upper Teesdale. This shows that they are part of the Raby Estate, which is owned by Lord Barnard of Raby Castle. On the other side of the river is the Strathmore Estate, owned by the Earl of Strathmore.

> From High Force Hotel walk between the hotel and gift shop and turn right along a path. Follow the footpath through the fields, past two barns, towards Dirt Pit.

Buried treasure

Look at the hills ahead and you'll see a V-shaped notch in the skyline. Known as Coldberry Gutter, this huge opencast working along a lead vein dates back to at least the mid-18th century. Miners excavated it with picks and shovels and periodically flushed it with water to clear



The long view

From this track there are great views across Teesdale. You can see the Age burial cairn.

The rolling, grassy hillocks along the bottom of Teesdale are a legacy of the last ice age and are known as 'drumlins'. They formed when ice flowed down Teesdale and shaped clay and boulders into smooth,

Hay time

In early summer many of these hay meadows are full of colourful wild flowers like yellow rattle, meadow buttercup, red clover and meadowsweet. The North Pennines has over 40% of the UK's upland hay meadows, which survive because many farmers practise traditional low-intensity farming methods.



Bowlees Visitor Centre

Bowlees Visitor Centre is in an old Primitive Methodist Chapel. Now you can enjoy our popular café and discover more about the area's remarkable landscape, geology and wildlife.



Bowlees Chapel around 1900

For a short extension...

There's an easy short walk (½ hour return) from the car park to Gibson's Cave. From the far end of the car park follow the path for 500m to the waterfall of Summerhill Force at Gibson's Cave. Return by the same route.



From Bowlees Visitor Centre walk to the main road. Cross the road and follow the footpath to Wynch Bridge.

craggy Holwick Scars which are made of the same hard whinstone you see at Low Force and High Force. On the skyline down the dale is a dark clump of trees. This is Kirkcarrion, the site of a large Bronze

streamlined mounds.

Ash Hill

Cross the bridge and turn right to

follow the Pennine Way. Follow the

path along the river past the

sandstone sheep.

What's in a name?

Like Low Force, High Force plunges over the Whin Sill. Below the Whin Sill you can see layers of sandstone and limestone, part of the sequence of rocks that make up most of the North Pennine landscape. 'Force' comes from 'foss', the Old Norse word for waterfall, This, along with other local landscape words like 'dale', 'beck' and 'fell', came here with Viking settlers around 1,100 years ago.

High Force view (top) At Holwick Head Bridge keep straight on for 900m, then retrace your steps.

500

Scale (metres)

ap based partly on OS mapping © Crown Copyright. I rights reserved. Durham County Council. LA 100049055. 2015.

Trees from the wildwood

Approaching High Force you walk between prickly, evergreen shrubs, part of the largest juniper wood in England. Juniper is a relic of the woods that grew here after the ice age ended around 15,000 years ago. Juniper berries are famous for flavouring gin but here they provide food for mice, voles and migrating birds like fieldfares.

Vanished village

Carry on to High Force (and back)

or cross the bridge, turn left to go

along the river and climb the steps

to the road and High Force Hotel.

Cross the junction and follow the road down to Dirt Pit. Continue along the track to Bowlees.

In the fields on your left there are the remains of a late prehistoric or Roman Period settlement. There's little to see now but 2,000 years ago you would have seen several round houses. The people who lived here hunted in surrounding woods, fished in the river, kept livestock and grew crops.



Wynch Bridge and Low Force

Just upstream from Wynch Bridge are the waterfalls of Low Force. Here, the River Tees tumbles over the hard dolerite or 'whinstone' of the Whin Sill, which also forms the rocky gorge beneath the bridge

The suspension bridge dates from 1830 and replaces an earlier one which collapsed in 1802. The bridge was originally built so that lead miners from Holwick could cross the river to work in mines on the north side of Teesdale.

