The York to Riccall Path

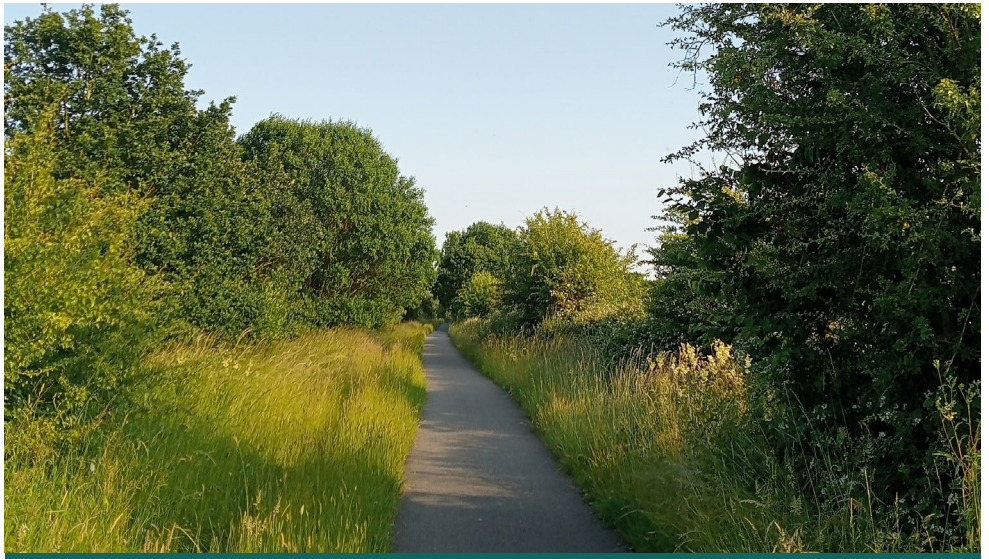
'The Solar System Greenway'

Travel York

CITY OF YORK COUNCIL

Introduction

Today the York to Riccall path is one of the most popular walking and cycling routes in York. This very scenic six-mile-long path was formerly part of the East Coast Mainline with trains running to London and Edinburgh. The railway line opened in 1870 and continued operating until 1983 when the threat of subsidence due to mining in the area caused the line to be rerouted elsewhere. The remaining track bed was then bought by the charity Sustrans for £1 and converted into a shared use path.



The path is now maintained by the charity and volunteers. The route is also part of the Trans-Pennine Trail and has links to other cross-country cycle routes which form the National Cycle Network.

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Accessing the path

The York to Riccall path can be accessed from several points. The main access points are:

1. Adjacent to Askham Bar Park and Ride site, Tadcaster Road (Bus Service 3)
2. Bishopthorpe, Appleton Court, (via Bus 11 or 23 to Main Street)
3. Riccall (Bus Service 415 to York Road)
4. An off-road path skirting the Knavesmire and Knavesmire Wood

Refreshments and toilets

Food and facilities can be found in Bishopthorpe, at Brunswick Organic Nursery, Naburn Marina, Tea by the Lock (Naburn Lock) or in Escrick.

Railway History

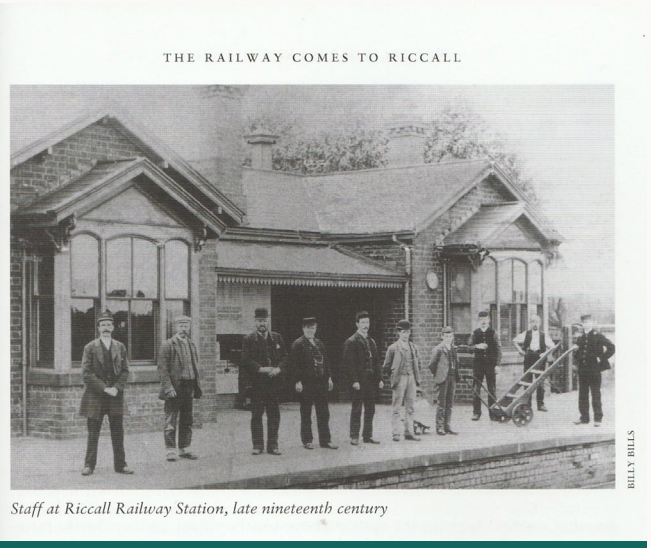
The York to Riccall path was formerly part of the East Coast Mainline with many famous trains making the journey to London & Edinburgh along this route.

The most famous of these trains was 'The Flying Scotsman' which made history in 1934 when it became the first train to travel at more than 100 miles per hour.

The route opened to trains in 1871 and finally closed in 1983.

Riccall, Naburn and Escrick all had their own stations and Naburn Station can still be seen today, although now it is a private residence.
Due to the threat of subsidence from mining the line was finally closed in 1983 after a replacement route for this stretch of the East Coast Mainline had been constructed.

This section of the former railway line was bought by the charity Sustrans for £1. They proceeded to convert the path into a shared use walking and cycling route.



Staff at Riccall Railway Station, late nineteenth century

The new path was opened in 1987 and became part of the National Cycle Network. The path is now looked after by Sustrans and a keen group of volunteers.

(Historical photographs provided courtesy of York Greenways railwaytogreenway.org)

Mining History

In 1983 the East Coast Main line was diverted to allow the creation of a complex of coal mining operations between Selby and York. With enormous untapped reserves of quality coal the Selby 'Super-pit' was a key element of the Labour government's 1974 'Plan for Coal'.

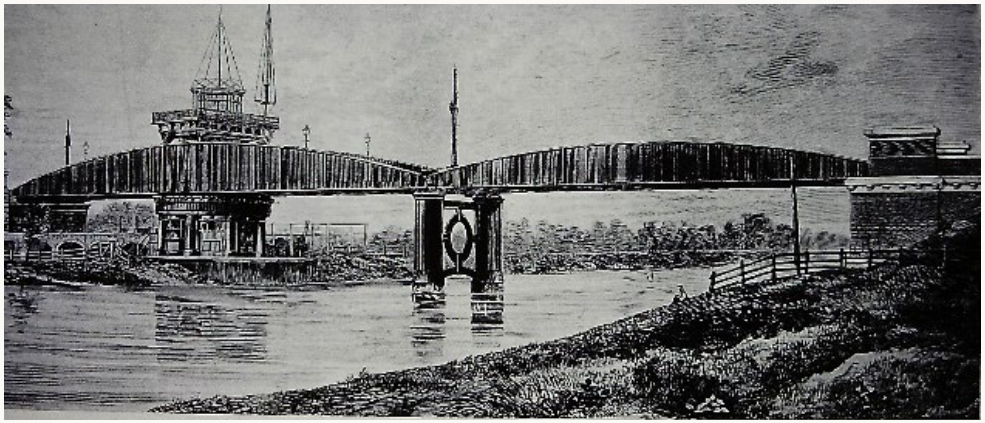
The Selby 'Super-Pit' was the largest deep coal mining project undertaken anywhere in the world.

During the 1984/85 miners' strike no coal was produced, but by 1992/93 the complex was fully operational, producing 10 million tonnes of coal. However, with privatisation, cheap imports, technical issues and the overall reduction in demand for coal for energy generation, production fell year on year. The complex, employing 1,900 men, closed in 2004.

"In its short productive life of 21 years the Selby Complex broke many national and international records. In the 1980s productivity was 5 times the national average. In excess of 400 coal faces were worked and 121 million tonnes of coal was mined from 460 miles of underground roadways."

A former coal mine 'cutting head' can be seen as you travel along the path between Escrick and Naburn

The River Ouse & Naburn Swing Bridge

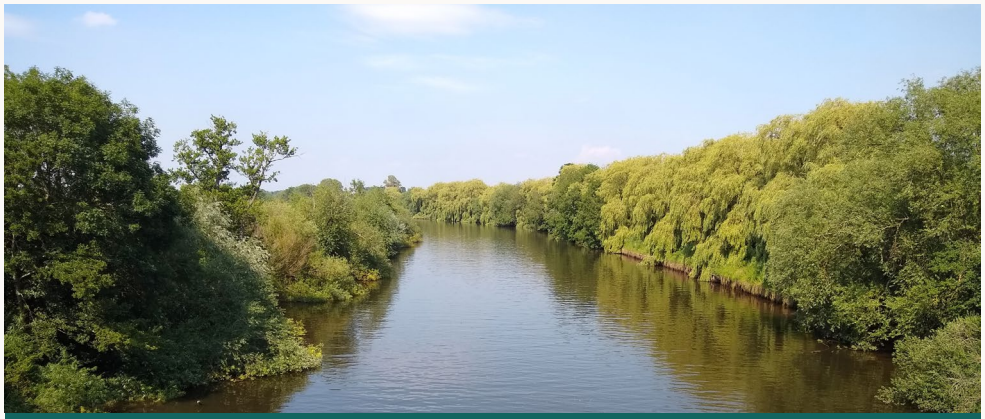


One of the most distinctive features to be seen along the path is the Naburn Swing Bridge which was built when the then Northeastern Railway (NER) wanted a faster route between London and Edinburgh.

The bridge was designed as a swing bridge so that it could be opened to allow the passage of commercial sailing vessels transporting goods to and from York.

A manned control cabin on top of the bridge was used to operate the bridge. The bridge was built in 1870/1871.

Boilers powering the bridge opening mechanism were kept at full steam 24 hours per day until 1954 when it was clear that the swing bridge did not need to open and parliamentary authority was obtained to permanently fix the bridge. In 1967 the bridge was permanently fixed and the control cabin on top of the bridge was removed.



The River Ouse has been important for trade since at least Roman times. Originally the river was tidal, but the construction of Naburn Lock meant that larger ships could travel upriver to York more frequently.

In the 1890's flour and grain were the most important cargo items, with over 6000 boats passing through Naburn each year.

The Solar Greenway

On your journey you will find scale models of our sun and all the planets in our solar system together with models of satellites sent to explore these neighbouring planets and beyond. These include models of Voyager 1 and Voyager 2 space probes, and Cassini, a spacecraft sent to explore Saturn and its rings.

Our solar system is 4.5 billion years old and light from the sun takes 8 minutes to reach the earth. The Solar System has 8 planets, 5 dwarf planets and 293 moons. When astronauts first visited our moon, it took 3 days to reach it. A journey to Mars would take 9 months each way.

The largest planet in our solar system is Jupiter, which is 1300 times larger than the Earth. The hottest planet is Venus with a surface temperature of 465°C.

The planet with the shortest day is Jupiter with a day length of only 10 hours, whereas a day on Venus is as long as 243 Earth days.

At the moment we don't know whether life exists anywhere else in our solar system or on other planets. We do know that Jupiter and Saturn both have moons with liquid oceans where life might be found in the future.

A spacecraft called New Horizons was sent to study Pluto and took 9.5 years to reach it. If you travelled there by bike it would take you 47,600 years. How long did it take you to reach Pluto on your journey today?

Flowering plants - Spring

More than 250 kinds of wildflower and grasses have been found along the path. After several months of wintery weather the arrival of spring is always very welcome with some of our most familiar and popular flowers returning in abundance. Along the path look out for snowdrops, primroses, daffodils and lords and ladies.

Look up and you will see hawthorn and blackthorn blossom, catkins on hazel and willow. Due to climate change spring is starting earlier and earlier each year and now happens around one month earlier than in the 1980's. Spring flowers are very important for pollinators such as bumblebee queens which wake up after hibernating and need to feed well before reproducing.

Snowdrops are one of the first flowers to appear in spring. It is believed that they were first recorded in gardens in the 16th century, but weren't recorded in the wild until the 18th century. More than 2500 different varieties are known. Some varieties have double the usual number of petals.

Lords and ladies are an unusual kind of plant. They temporarily trap small insects in order to pollinate their flowers. The temperature within the flower can be 15 degrees centigrade warmer than the outside air temperature.

Colt's-foot's flowers appear before their leaves.
Can you find any other plants which have flowers before their leaves along the path? (Clue – look at the bushes).

Flowering plants - Summer

There is an abundance of flowers to be seen along the path every summer. Not only are there many kinds of flowers, there is also an immense variety of colours, scents and flower shapes. Some of the simplest flowers to be found are the buttercups and their relatives.

Other kinds of flower are considerably more elaborate. Honeysuckle flowers have very long tubes which means that nectar is only available to moths with long tongues. Some of the most complex flowers are orchids where some species such as the bee orchid resemble the appearance of a bee, in order to attract male bees looking for a mate. Plants with similar kinds of flowers are often related. Can you find any flowers in the daisy family or the thistle family?

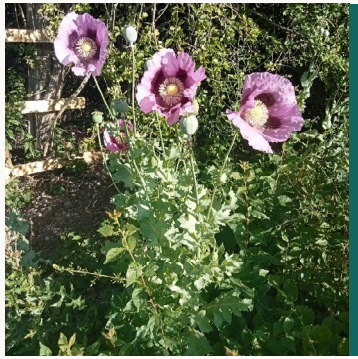
Some plants produce flowers with colours and patterns that we cannot see. Bees can see ultraviolet light and are attracted to these invisible markings. Some flowers produce scents which can be detected a considerable distance away.

Find some scented flowers. How far does the scent travel? Can you find a flower which lasts only for a single day or night? Can you find a long-lasting flower?

Some of the plants you will see along the path are very attractive as food for insects. More than 250 species of insect will feed on an oak tree and more than 200 on a birch tree.

By contrast, only four species will feed on a yew tree. In order to defend themselves from being eaten many kinds of plants contain chemicals which are toxic or deter insects from feeding on them. Holly is a well defended plant having both spines, tough leaves and chemical defences. As a result only seven kinds of insect can feed on this plant.

Flowering plants - Summer



Take a look at some of the plants along the path. How do you think that their seeds are spread? A plant that dropped all of its seeds directly below its parent wouldn't be able to spread very easily and its young might be shaded out by the parent.

Some species such as cherries produce fruit that is eaten by birds. The seeds pass through the birds' digestive system and then may be deposited several miles away. The bright pink Himalayan Balsam has 'explosive' seed pods which suddenly open when dry catapulting seeds some considerable distance from their parent plant.

Other common plants such as burdock and goosegrass produce seeds with 'hooks' on them. These seeds then stick to the fur of passing animals and are often transported far from the parent before falling to the ground and germinating.

Sycamore seeds produce seeds that spin like a helicopter's blades helping them to be transported away from their parent tree. Other plants have seeds that are spread by wind or water.

As you walk along the path you will notice that some kinds of flower are quite common whereas others are very rarely seen.

Can you identify the most common flower? What was the rarest flower that you saw?

A book or an app could help you with this.

Flowering plants - Autumn

A single oak tree may produce 10,000 acorns for every year of its adult life, just to ensure that one of those seeds is able to successfully grow into another tree.

Orchids have to work even harder and produce millions of tiny dust-like seeds each year. Take a look inside some of the seed pods you can find. Which plant produces the most seeds? Which plant produces the fewest seeds? Why do plants need to produce so many seeds?

Many plants use animals to help with the dispersal of their seeds. Look out for grey squirrels along the path. They collect thousands of acorns every year and bury many of them to recover later as a source of food during the winter. They usually forget the location of a few of the seeds, and those seeds then have a chance to grow in the following spring. Jays are also an important disperser of seeds.

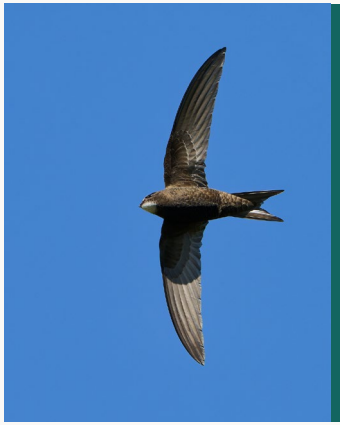
Most trees along the path shed their leaves and some branches in the winter. These provide an important source of food for fungi, beetles, worms and other wildlife.

How many kinds of wildlife can you find amongst the leaf litter?

Birds

Around 56 kinds of birds have been recorded along the path. Species you might expect to see include mute swan, house martin, tawny owl, little owl, lapwing, yellowhammer, goldfinch, grey heron and skylark.

The familiar swallow is a migrant wintering across sub-Saharan Africa. They may spend several weeks travelling more than 6,000 miles before reaching the UK and York.



Biologists have discovered that the common swift can fly for 10 months straight without landing. They land only for their two-month breeding season. Whilst flying they sleep for just a few seconds at a time. They have also been recorded flying at 69 miles per hour.

Kingfishers can sometimes be seen flying across the River Ouse. They need to eat their own body weight in food every day.

Bullfinches are one of the most conspicuous birds along the path. They eat tree seeds and buds, plus some insects in the summer. They breed between May and July and their young leave the nest after only 15 to 17 days.

Mammals

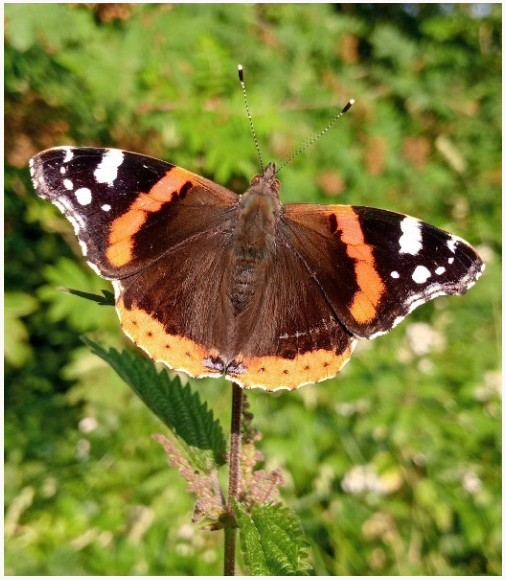
The UK currently has 101 species of mammal and around 28 of those live within the vicinity of the path. Species most likely to be seen include, rabbits, hares, roe deer and grey squirrels. If you are lucky you may also see hedgehogs and stoats. Pipistrelle bats can be seen at dusk.

Grey squirrels were introduced to the UK in 1876 from North America and were considered to be an ornamental species for the grounds of stately homes. Their numbers rapidly increased and now there are almost 3 million. However, the most abundant mammal in the UK is believed to be the field vole with a population of 75 million.

Around 150,000 roe deer live in England. They love feeding on young trees and shrubs, which can prevent woodlands from regenerating.

In the evening look out for bats. Bats can eat 3000 insects in one night. Their calls are produced at a frequency that can be difficult for humans to hear, but the calls of individual species are very distinctive if listening to them using a bat detector.

Butterflies and moths



There are 59 species of butterfly currently to be found in the UK with around 20 of these living in York. In contrast, the UK has a massive 2600 kinds of moth. Some very colourful kinds of butterflies can be seen along the path including peacock butterflies, small tortoiseshells, speckled woods and red admirals.

Caterpillars are a common species that often feed on tall grasses, thistles and stinging nettles. Butterflies have a very brief life with few surviving for more than ten days. The amazing Red Admiral migrates to the UK every year from North Africa or southern Europe and may spend five weeks travelling over 1000 miles to reach us.

To find out how butterflies are doing in your area, try walking along the same route once every two weeks over the summer. Count the number of butterflies that you see and compare the results to previous years.

If you ever walk along the path in early summer you may smell the strong scent of honeysuckle, a plant which is particularly attractive to moths, but only those with long tongues.

Moths also find the flowers of buddleia, evening primrose and willow particularly attractive.

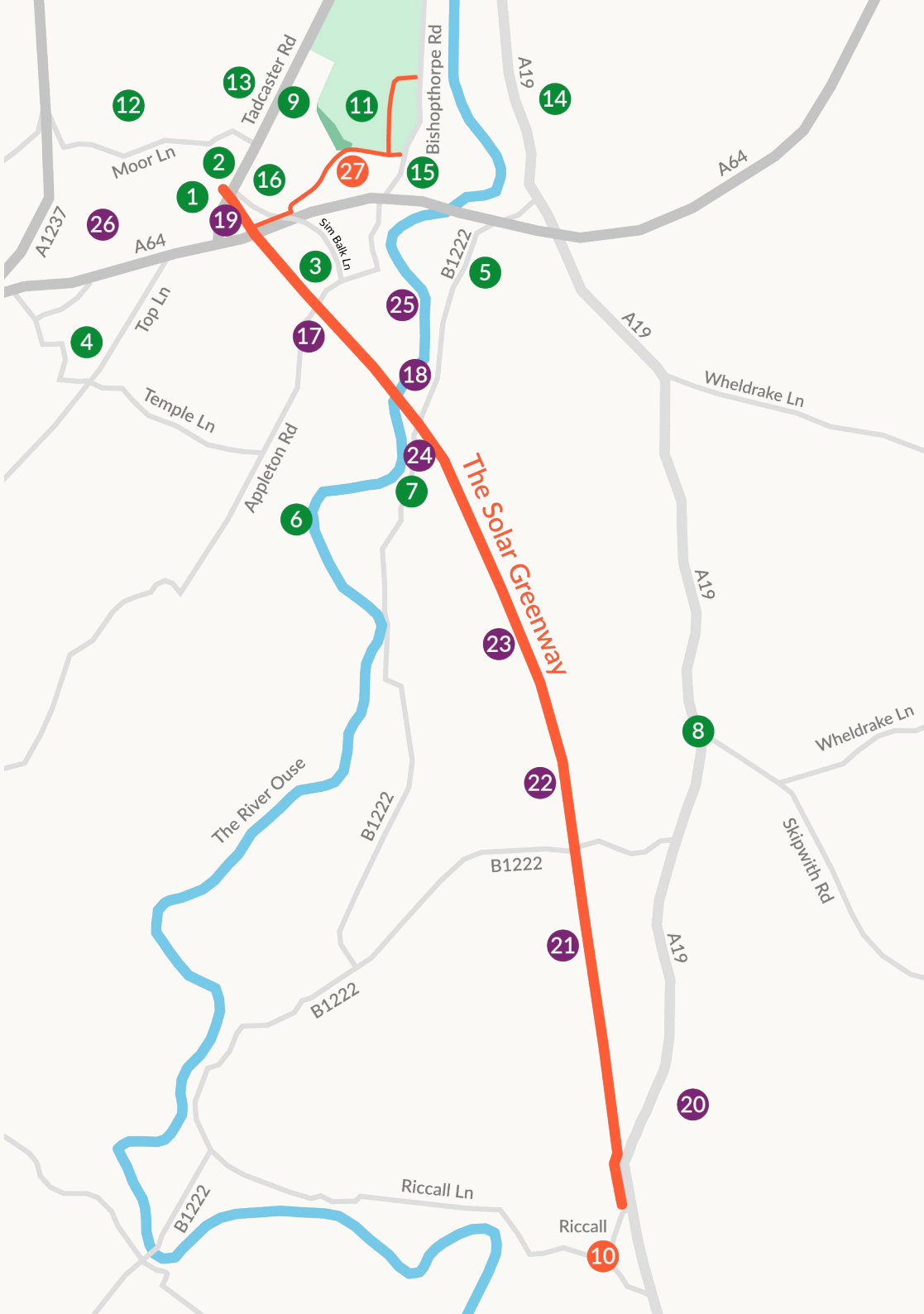
Take a look at a buddleia bush at dusk. How many different kinds of moth can you see?

Butterflies & moths smell using their antennae. They can detect very faint scents, sometimes from miles away.

Map - York to Riccall Path

1. Askham Bar
2. Tesco
3. Bishopthorpe
4. Copmanthorpe
5. Designer Outlet
6. Acaster Malbis
7. Naburn
8. Escrick
9. Tadcaster Road
10. Riccall
11. Knavesmire
12. Woodthorpe
13. Dringhouses
14. Fulford
15. Middlethorpe Hall
16. York College
17. Brunswick Nursery
18. River Ouse & Bridge
19. The Sun - large globe
20. Three Hagges Woodmeadow Reserve
21. Heron Wood
22. Moreby Far Wood
23. Naburn Wood
24. Naburn Marina
25. Bosuns - Cafe & Restaurant
26. Askham Bog Nature Reserve
27. Knavesmire cycle path/footpath (route to/from central York)

Bus stops
Food
Toilets



Beetles, bugs and flies

Whilst birds and mammals are the kinds of wildlife that tend to attract the most attention, the majority of animals in the UK are actually insects. Whilst 634 kinds of birds and 101 kinds of mammals have been recorded, we have currently have over 24,000 kinds of insects living in Britain!

Beetles are the largest group of insects in the world and in the UK we have 4000 species with ladybirds being the best-known kinds. You will often find ladybirds on plants where they can eat around 80 greenfly and other plant pests per day.

Bugs are a separate group of insects that includes greenfly, shield-bugs, plant bugs and leafhoppers. Female greenfly can give birth to 80 live offspring without a mate and the young are exact copies of their mother!

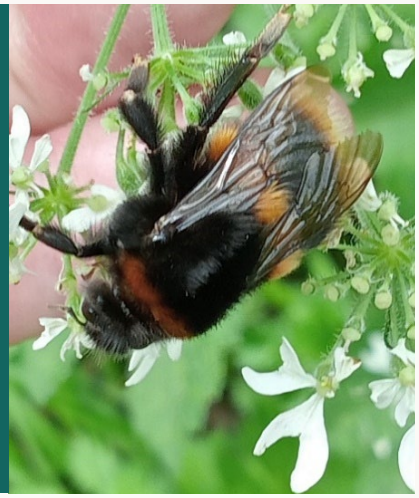
Flies are a very varied group of insects with over 7000 species to be found in the UK. Some kinds of fly will feed on rotting carcases, but others such as hoverflies will feed on flowers and on greenfly when young.

Other kinds of insect to be seen along the path include dragonflies, grasshoppers & scorpionflies.

How many kinds of insects can you find visiting flowers as you walk along the path?

Bees

There are over 270 bee species to be found in Britain ranging from the well-known honeybee to bumblebees and solitary bees. In addition, many other insects including some beetles and hoverflies are mimics of bees, copying their appearance and markings to appear more dangerous than they really are.



Bees are vital pollinators of many crops including apples, pears, kiwi fruit and watermelons.

A typical honeybee nest can contain from 20,000 to 80,000 bees, but solitary bees find cavities where they lay just 20 to 30 eggs, leaving each one with a small supply of pollen and nectar.

A single bee can visit up to 5,000 flowers every day.

When flying, a bee's wings beat up to 230 times per second.

All bees have five eyes - two compound eyes and three 'ocelli' and can see ultraviolet light.

The oldest known bee fossil is around 73 million years old, but fossil nests have been discovered dating to around 100 million years old.

Female bees can selectively lay male or female eggs, and only female eggs are fertilised.

How many kinds of bee can you spot on your walk?

Can you spot any insects that mimic bees?

Fungi

Whilst many people associate mushrooms with the autumn, they can in fact be found throughout the year. Also known as fungi, there are more than 16,000 species known in the UK.

Fungi play a very important role in breaking down dead leaves, wood & animal remains, recycling minerals and allowing life in woodland and grassland to thrive. They also form partnerships with many kinds of plants, enabling them to grow in locations where they could not otherwise survive.

People have been using bread yeast, a kind of fungus, to make bread for over 5000 years. Yeast is also used to make beer and wine. Fungi also produce antibiotics which have been used to save millions of lives around the world. Recently fungi have been found that can break down plastics, and many other kinds of pollutants.

Some kinds of fungi can glow in the dark. It is thought that they do this to attract insects to disperse their spores.

The largest living organism in the world is believed to be a kind of honey fungus. A single fungus was estimated to grow across an area of 2384 acres (equivalent to 1500 football pitches).

Some fungi are parasites of ants, turning them into zombies and causing them to climb blades of grass where they die and then shed the spores of the fungus infecting other ants.

Search carefully and you will find many kinds of fungi along the path. Some species are poisonous, so please don't eat any if you aren't 100% sure of their identity.

Further reading

Railway to greenway
railwaytogreenway.org

Volunteering opportunities

If you would like to help to look after the path, record local wildlife or research local history, please contact York Greenways at yorkgreenways.org.uk.

Sustrans
sustrans.org.uk/volunteer

Transpennine Trail
transpennine trail.org.uk/volunteers

York City Nature Challenge
yorkcitynaturechal.wixsite.com/YorkCNC

Local organisations

Yorkshire Wildlife Trust
ywt.org.uk

Yorkshire Naturalists Union
ynu.org.uk

York Ornithological Club
yorkbirding.org.uk

York RSPB
group.rspb.org.uk/york

Yorkshire Mammal Group
yorkshiremammalgroup.org.uk

National organisations

National Cycle Network
sustrans.org.uk/national-cycle-network

Transpennine Trail
transpennine trail.org.uk

Butterfly Conservation
butterfly-conservation.org

RSPB
rspb.org.uk

National organisations

Buglife
buglife.org.uk

Bumblebee Conservation Trust
bumblebeeconservation.org

Freshwater Habitats Trust
freshwaterhabitats.org.uk

Botanical Society of Britain and Ireland
bsbi.org

Plantlife
plantlife.org.uk

Open Country
opencountry.org.uk

Why sustainable travel matters

By choosing to travel sustainably by bus, car-sharing, bicycle or on foot you can:

- Reduce air pollution, which harms people and wildlife
- Reduce the risk of more frequent floods, droughts and heatwaves due to climate change.
- Reduce the noise caused by traffic. Many species of wildlife avoid noisy roads.
- Reduce the number of animals killed on our roads
- Improve your physical and mental health

Find out more

To find out more about walking, cycling and bus travel in York see the iTravel York website: **itravelyork.info**

Photo-credits

Thanks to Guy Wallbanks, Terry Weston, Michael Flowers and Peter Huxford who supplied photographs for use in this booklet.

Acknowledgements

Thanks to everyone who provided information for use in this booklet.

We've included a lot of mathematical facts and figures in this booklet. If you'd like to improve your maths:

Scan the QR code, call 01904 554277, or email york.learning@yorklearning.org.uk

If you would like this document in an alternative format, please contact:

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