

Wildlife on Campus

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Notes for an Illustrated talk to Fishergate, Fulford and Heslington Local History Society

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Introduction

I began work at the University of York on 1st August 1994 and as such, have worked for the University for nearly 30 years, or to put it in another context, almost half the length of time the university has been in existence. This of course means I know very little about what proceeded me in terms of campus wildlife, but I can tell you about what has happened over the last 30 years or so.

I am neither a botanist or a zoologist. My background is in horticulture and landscaping, but in terms of this presentation, I am mainly going to focus on the fauna of the campus, rather than the flora.

As many of you will know, the university came into existence in the early 1960's and one of the primary features of the campus is the serpentine lake running through its centre. This lake is both functional and aesthetic, but a by-product of water is also an increase in biodiversity, including wildfowl and fish, so I will talk a little bit about the management of both in the context of west campus.

Slide 2

Wildfowl on campus



This is one of several information boards that can be found around the lake on campus west and depicts a range of bird species that you might see on the lake. Most of the birds are wild, but some will have been introduced at one time or another. Some you will very rarely if ever see and there will be some additional species that show up from time to time that aren't represented here. All of these bird species are welcome, but there are some species that may become problematic from time to time

Wild birds which cause issues



Perhaps what I should also mention at this juncture is that when I first started work at the university, there existed a Lake & Grounds committee, to which I was expected to report annually. To prepare for this presentation I looked back into my files and although the L&GC is long since defunct, I still have an old file containing information from it. As I said, I started at the university in August 1994. On the 12th I was copied into a memo from the Maintenance Manager to the Chair of L&G about the wildfowl population, which I'd like to read to you here. Ten days after this a handwritten note from the then Vice Chancellor was sent to the Estates Surveyor as follows:

Suffice it to say that one of the first issues to cross my desk when I started at York was to do something about the goose population. To begin with we constructed a wildfowl catching pen and kept the Vice Chancellor informed as to how many wildfowl we had managed to catch, but attempts to catch and relocate wildfowl were relatively unsuccessful and by the end of February 1995 I was told the pen was becoming an eyesore and I had to remove it.

The wildfowl report to the L&GC the following year is also interesting to note for a couple of reasons: Firstly, it describes another method of population control i.e. that of reducing the number of eggs in nests during the spring and that more ornamental species of wildfowl were being purchased and introduced to the lake.

Of all the species of wildfowl on campus, it is only really the Greylag and Canada geese that have to be managed/controlled and this is linked to the mess they make, particularly at times like open days and graduation.

Slide 4

Wildfowl issues



Notwithstanding the personal memo from the then VC, the main issues caused by high populations of Greylag and Canada geese, are the mess they can make and also the effect their grazing has on marginal aquatics. Geese are heavy grazers of grass, so there is usually plenty of food for them to exist on, but they will also graze on aquatic vegetation until it becomes well established.

Slide 5

Control Measures

- Apply to Natural England for licence to treat eggs
- Apply to Natural England for transport/relocation licence
- Avian influenza
- Natural predators

The way we manage the geese populations now isn't really any different to how they were managed 30 years ago in that we still try to relocate the geese and we still treat eggs during the nesting season to limit how many hatch. Both of these operations require us to obtain licences from Natural England because we are dealing with wild animals and if we didn't obtain licences, we would be operating outside the law.

Greylags more prevalent because they nest slightly earlier and claim best nesting sites

Canadas are actually a designated pest, so if we did catch any, strictly speaking we shouldn't let them go again

Rounding up is carried out mid to late June after geese have moulted their flight feathers. Can only really round them up whilst they are flightless

Other methods of control: Avian 'flu In 2006 there was a lot of hysteria around avian 'flu and the potential of it reaching the UK. Strict protocols were brought in around the reporting of dead wildfowl. During 2006 we recorded nearly 200 instances of avian mortality on campus, with 40 of these being reported to DERFA – basically any Swan, goose, duck or gull found dead on campus. DERFA would periodically collect the carcasses for post mortem examination, but none were ever found to have avian 'flu.

Contrast the situation from 2006 with that of 2022 – not nearly so much hysteria generated by the media, although the situation was a great deal worse!

There are also natural predators of the wildfowl population. For example crows & magpies quite heavily predate ducklings and this means we never have a problem with high numbers of duck species. Geese are much more aggressive than ducks and can effectively protect their goslings from the likes of crows & magpies. However, we also have a lot of foxes on campus, which remove a proportion of the wildfowl population, both adult and juvenile.

Slide 6

Desirable wild species



Pretty much all wild species of waterfowl are desirable and we do occasionally get some quite exciting visitors. For example we've seen a Great Egret on campus and very recently Black Winged Stilts. A Kingfisher has also recently been spotted.

Slide 7

Purposely Introduced species



Several species have been purposely introduced to campus over the decades. Notable examples are Barnacle & Snow Goose and also Black Swans. We still have reasonable sized populations of Barnacle & Snow Goose and as you can see from the photos, they do breed successfully. Although I am not 100% sure of this as a fact, but the university campus may be one of only two locations in the British Isles where Snow Geese breed.

We don't have Any Black Swans left on campus. They are actually a species native to Australia and as such as used to breeding in November time, which equates to springtime in the southern hemisphere, but the beginning of winter in this country. As a result, very few cygnets ever survived.

Slide 8

Wildfowl that have been abandoned on campus



Unfortunately, we also get our fair share of wildfowl that have been clandestinely left on campus – most notably, this particular Indian runner duck cross aka Longboi. If you will pardon the pun, Longboi and his domestic counterparts are sitting ducks when it comes to life on campus. They are domesticated by nature and do not have the sharpness of instinct of their wild brethren, which makes them more susceptible to falling prey to predators like foxes.

Slide 9

Welfare Issues

Feeding the wildfowl proprietary poultry food is much better for them than giving them bread, as this can cause some geese to develop a condition called 'Angel Wing'

Many people come onto campus specifically to feed the birds and over the last few years we have made up bags of food that can be purchased on campus by students and campus visitors

The grounds section is also the main point of contact for the reporting of injured birds. We receives lots of reports relating to birds with Angel Wing and with limps. Because they are mostly wild birds, there is little we can do to in terms of intervention.



A major reason why we discourage people from feeding the wildfowl bread is that it causes a condition called Angel Wing in young birds. Too much human food can cause the flight feathers to begin to grow whilst the wing bones are still soft and pliable. The weight of the feathers leads to the bone bending into the wrong position and the flight feather consequently stick out at the wrong angle preventing the bird from being able to fly.

This often leads to reports of injured birds, but the reality is they aren't injured and there is nothing we can really do for them. This is one reason why we now buy in duck corn and bag it up for sale in the supermarket on campus, so that campus users who want to feed the birds can do so and help us out at the same time.

Slide 10

Social Media

Duck of the Day – Can be found on the university's wildlife page. The link takes you to a wildfowl photo that changes daily.

The grounds section also has an Instagram page where photos taken from around campus are posted – many of them wildfowl related

Longboi – More famous than Donald!



Long Boi

Long Boi was a campus duck who rose to fame in 2019 after a student created an Instagram account in his name. A Mallard and Indian Runner Duck cross, Long Boi was recognisable by his bold personality and unusual stature. He was noticeably taller than his fellow ducks, standing at around 70cm high.

It is unclear how Long Boi came to live on campus, but reports suggest he was first noticed in early 2019. His verified Instagram account, which grew to have more than 54,000 followers, was launched in May 2019.

In the years that followed, Long Boi reached unexpected heights of fame. He made appearances in global media, including on the Radio 1 Breakfast Show with Greg James and James Corden's Late Late show in the US.

Long Boi was dubbed "Britain's most famous duck"

In May 2023, Long Boi was declared presumed dead, after fans noticed he had not been seen in more than two months.

Slide 11

Fish

Fish colonised the lake and Pike became dominant, so in 1969 Rotenone was applied to the water which exterminated the Pike



As well as the wildfowl, the management of the fish population in the lake on campus west has featured prominently in my time at the university.

Slide 12

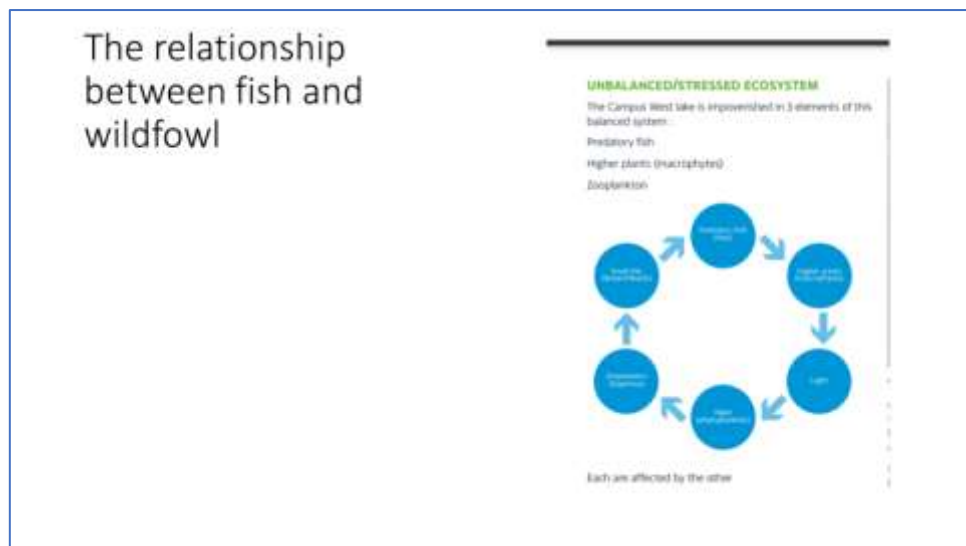
Fish

Several months Later the Lake was restocked and an angling club was formed. Nowadays the dominant species in the lake are Carp and Bream



Carp and Bream came to dominate the fish population primarily because these were the types of fish that anglers wanted to fish for and that's all well and good until you consider the effect these species of fish can have on the ecology of the lake.

Slide 13



As in so many instances, there are connections between species and different types of fauna. With the wildfowl and the fish, it is the effect both have on the lake ecology. Campus west has often been cited as an example of an unbalanced or stressed ecosystem, as demonstrated by the graphic.

Slide 14



The removal of the apex predator in the form of the pike in part precipitated this imbalance, as did the introduction of species that were heavy grazers of zooplankton. The simple solution would have been to reintroduce Pike, but the angling club were obstinately opposed to this and so we had to look to other means. To this end we brought in the EA to help us bio-manipulate the fish population. This involved periodically removing a quantity of fish from the lake, which the EA took to re-stock other fisheries. This photo was taken back in 2007 and was the last occasion on which the EA did this.

Slide 15

Redressing the balance naturally

Piscivorous Birds



Otter



Since then, we have received more traditional assistance in controlling the fish population in the form of piscivorous birds and regular visits from Otters. Birds such as Grebes, Herons, Little Egrets and Goosanders take a lot of small fish, which might otherwise have been taken by Pike. Otters have also thinned out the big fish population, which has led to a reduction in breeding and less big fish stirring up the bottom sediments as they feed.

Slide 16

New Lake – new approach

- No fish were introduced to the new lake
- The fish population has colonised naturally over the last decade
- Plenty of Bird species visit the lake that take fish – Heron, Kingfisher, Gulls, Little Egret, Great Crested Grebe, Goosander, Cormorant
- No angling allowed on the lake

Slide 17

Problem Wildlife on campus



Apart from the wildfowl and fish, what about our furry friends? We also have an abundance of squirrels & rabbits on campus and both can cause issues.

Squirrels damage trees, but they can also get into roof spaces and chew things like electric cables.

Rabbits quite often eat plants that we rather they wouldn't - example the new landscaping around Lister & Kato colleges. They also like to dig warrens in inappropriate places, which can cause issues.

Slide 18

Methods of Management/control

Pigeons & rats – pest control contract

Rabbits – natural predators – Foxes & stoats and myxomatosis

Squirrels – hard to control



We don't control squirrels or rabbits because it would be too problematic to do so. Squirrels are difficult, but there are some natural checks on the rabbit population.

I perhaps should also mention pigeons at this juncture – they are a nuisance, largely in terms of the mess they create and quite a lot of money is spent annually on discouraging pigeons from roosting on buildings. The problem is that virtually all our buildings provide ideal roosting opportunities.

For a very brief period about 15 years ago we had a go at controlling pigeon numbers by flying birds of prey to catch them. It was effective, but too expensive for us to keep it up on a long term basis.

We've also tried audio devices to scare off the pigeons, but they very soon become conditioned to hearing the sound and it then has little or no effect.

Slide 19

The Development of Heslington East

Managing Wildlife & Improving Biodiversity



It was in 2008 that work began on the development of the new Heslington east campus. One of the planning conditions placed on the university at the time was to increase the biodiversity of the site by creating a mosaic of different wildlife habitats. Not a difficult thing to achieve as prior to this the land was intensively farmed arable land.

Slide 20

Ecological Management Principles

- Preserve existing valuable habitats
- Create a variety of new/ different habitats
- Link habitats to enable species movement
- Time management operations to avoid unnecessary impacts on species
- Keep management intervention to a minimum
- Compost green waste and think about pest control



Slide 21

Preserve existing habitats



Ditches

Hedgerows

Woodlands

Trees

Some hedgerows and ditches on the site were retained, particularly of note was the hedge along the southern boundary of Low Lane, as it contains a number of different species.

Ditches were a good natural source of wetland plant material

But there was only one small area of semi mature woodland and few mature trees, as the land was in agricultural use.

Slide 22

New habitats: Wetlands

The best way to increase the biodiversity of a site is to introduce water

Tremendous potential in terms of habitat creation

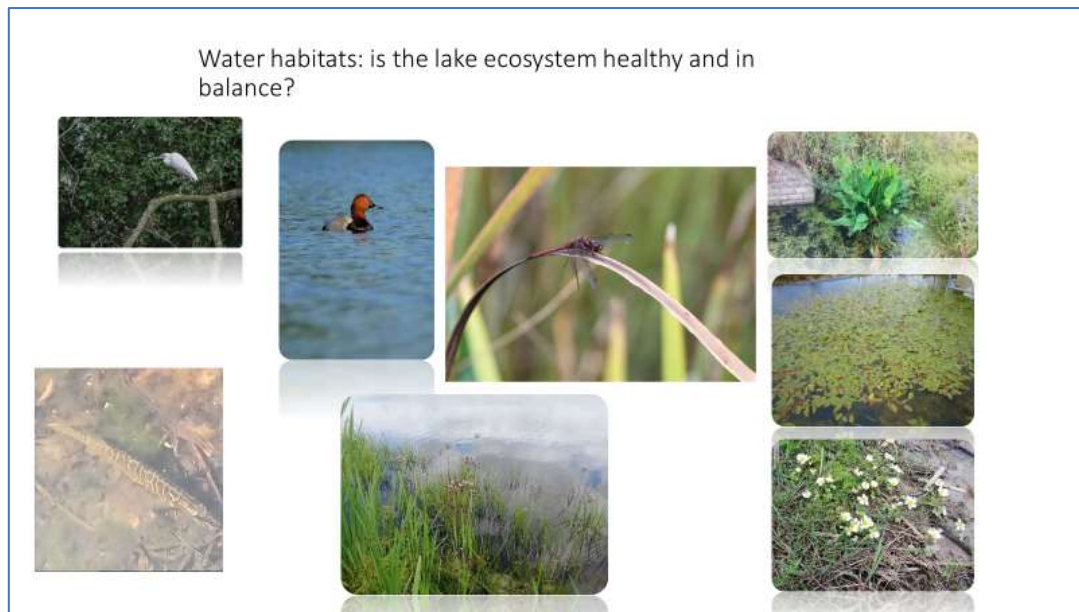
Floating/marginal vegetation

Aquatic invertebrates

Supports a range of bird species



Slide 23



Campus west lake is a good example of an unbalanced/stressed eco-system. To do something about it now would mean a major and costly intervention.

We have tried to avoid this happening on campus east.

We don't know definitely what we have in the lake in terms of plant and animal species which make up the eco-system, but the examples on the slide give a flavour of the type of wildlife you might see, depending on time of year.

Slide 24

New Habitats: Species rich meadow



- Soil inversion provides low nutrient medium for successful establishment
- Cut in early August and removed as a hay crop
- Yellow Rattle controls excessive grass growth
- Foraging for bees
- Habitat for Grasshoppers, Crickets and other invertebrates
- Nesting habitat for birds

Creating species rich meadowlands was a challenge in so much as you need low fertility conditions to grow wildflowers successfully but the land had been highly fertilised to grow crops. High fertility would allow coarse grasses to outcompete wildflowers.

Preparing the Land



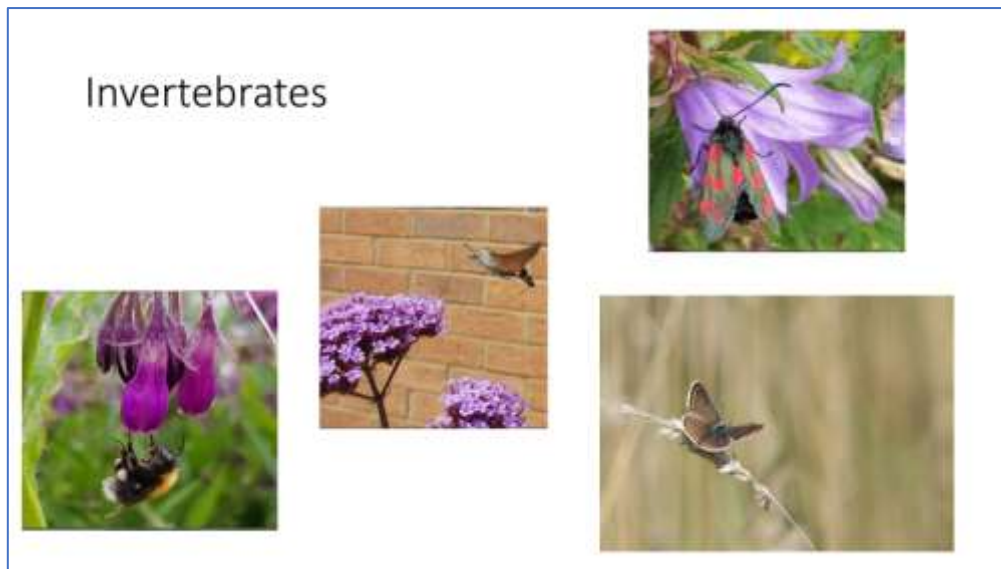
We overcame this through soil inversion, initially through the muck shifting operation in phase 1 of development when the lake was being excavated and the topography of the site being reshaped.

We followed this in localised areas by deep ploughing to bury top soil and bring subsoil to the surface.

Wildflowers on campus



Slide 27



Invertebrates will in turn attract birds that feed on them and meadowlands will also provide nesting opportunities for ground nesting birds – Skylarks for example.

Slide 28

Habitat Type: Woodlands


One of the priority habitats on campus east as well as being a priority habitat in the UK BAP

70,000 trees planted in 15 woodland belts about a decade ago

Each block contains a broad range of native species, but predominantly Pedunculate Oak & Ash

Planting made up of trees & shrubs to try and create both a canopy and under storey

Should provide habitat for other priority species including birds, bats and small mammals



The slide contains the title 'Habitat Type: Woodlands' and five paragraphs of text. To the right of the text are two photographs: the top one shows a grassy field with young trees and a cloudy sky, and the bottom one shows a dense forest with tall trees.

Slide 29



Woodland Management Aims

- Develop a diverse herb layer including foxglove, bluebell, wood sorrel etc
- Provide habitat for priority bird species such as dunnock, song thrush and bullfinch
- Introduce nesting and roosting boxes as trees become big enough
- Create log piles from wood generated through thinning operations

Hopefully over time the woodland blocks will develop a diverse herb layer and provide habitat for priority bird and mammal species. Nesting and roosting boxes can be introduced when the trees become big enough and log and brash piles can be created from the wood generated by thinning operations.

Slide 30

It's not just waterfowl that we attract to campus

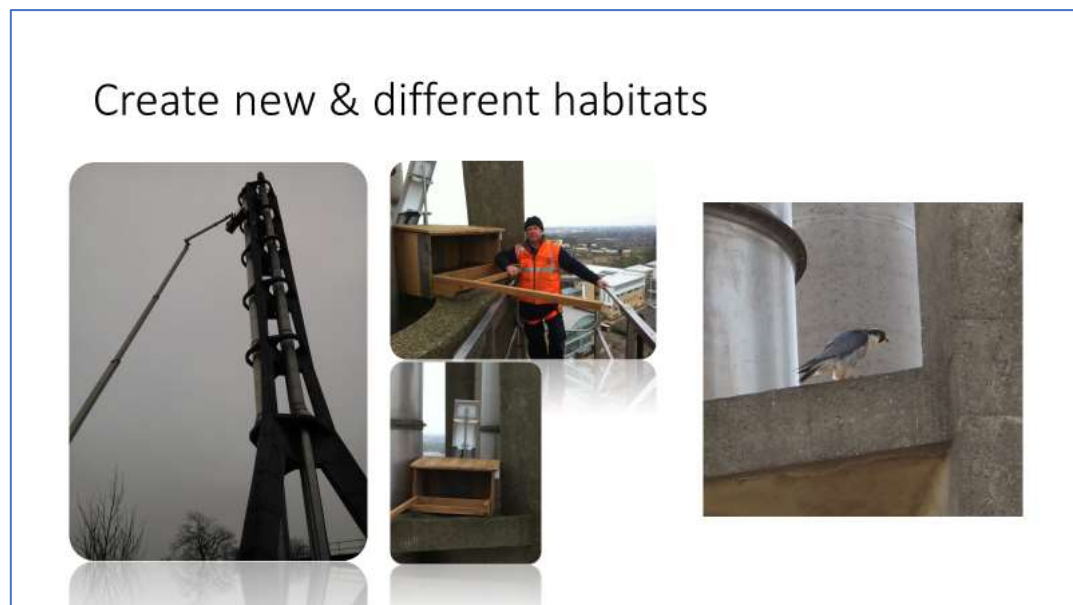


Slide 31



A few examples of what we have done to increase the potential of habitats to encourage more species onto campus

Slide 32



In 2014 we installed a Peregrine falcon nesting box high up on the CBH chimney. We knew that Peregrines nested on The Minster, so we hoped to attract them to campus as well.

We had no interest whatsoever until July last year when a lone bird showed up to scope out the box. He came back in spring this year but without a mate. There are two birds now though, so we are keeping fingers crossed for a breeding attempt next spring – 10 years after the box was first installed.

You remember earlier that I mentioned the use of birds of prey to control pigeons, well having a pair of Peregrines around might have the additional bonus of scaring the pigeons off.

Slide 33

What else might you spot on campus?



Slide 34

Bees needs

- Many hectares of species rich meadowland on Hes East
- Bee friendly plantings on Hes West
- Substituting seasonal bedding for wildflowers
- Reducing grass cutting frequencies



Since the development of Heslington East one of the primary strands of ecological management has been to help bees and other pollinators. One of the major habitats created has been species rich meadowland and one of the primary benefits of this habitat is to provide foraging for bees.

Since 2013 the university campus has held a green flag award. This is the benchmark national standard for publicly accessible parks and green spaces in the United Kingdom. As an offshoot of this KBT also ran a Bees Needs award and given the work we had already done in this context, we decided to enter the campus and were successful in gaining the award.

In addition to the wild bee population, we have also had several bee keepers on campus over the past decade. They keep their bees on campus to take advantage of the considerable foraging opportunities available on campus

Slide 35



Over the last few years, there has been a great deal of focus on making the university campus hedgehog friendly.

Slide 36

Same principle as making your garden Hedgehog Friendly but on a larger scale



- We have established a range of habitats such as:
- Deciduous woodland
- Wildflower meadows
- Lake & wetlands
- Hedgerows







All of which should be beneficial to Hedgehogs

It was always anticipated that campus east could be a potential release site for rescue Hedgehogs, but interest and awareness amongst both staff and students in the plight of Hedgehogs has led to the founding of a Hedgehog group and a drive to achieve Hedgehog Friendly Campus status. Over the past five years we have systematically worked our way through bronze to platinum, which we achieved early in 2023

Slide 37

Hedgehog Group

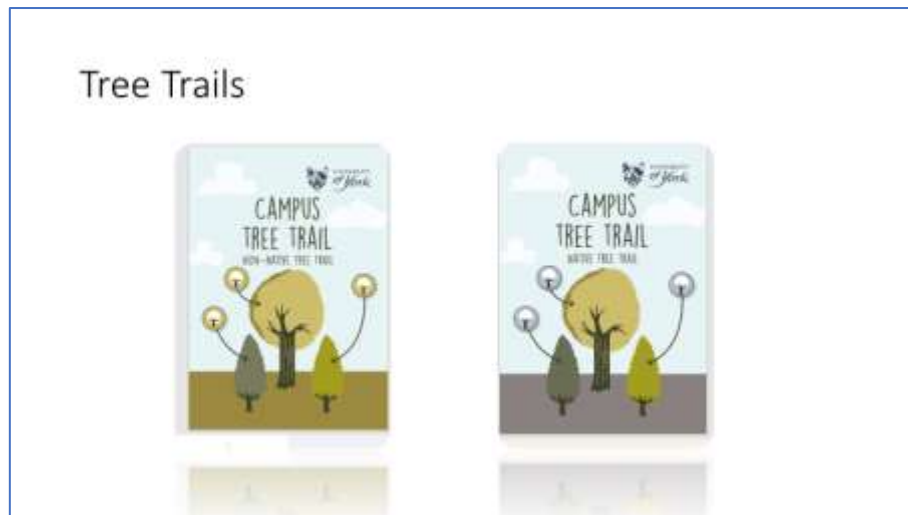
- Building hibernaculum
- Feeding stations
- Log piles
- Causeways
- Carrying out surveys
- Litter picking



In addition to all the above activities, we quite often find hedgehogs on campus that need to go a rescue or to a vet. Providing the outcome is good, when they are better, we re-release them onto campus in the locality of where we found them.

Slide 38





We are close to the end of the presentation now, so these last few slides are really about things of additional interest.

We have two tree trails around west campus, which I lead from time to time, although campus users are welcome to follow them themselves. The native tree trail has a focus on the benefit of native trees to wildlife.



Slide 40

Again this slide is just for interest. The University launched its new sustainability strategy in October 2021, but this time line highlights how much the work of the grounds section contributes to the university's sustainability credentials and what it values.

Finding out more ? Ecological Management Plan



As highlighted on the sustainability timeline, we have had an EMP since 2013 and this document describes how we try to manage the campus for the benefit of wildlife and to increase biodiversity. It is available to read on the grounds section web pages on the university website.

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