



NATURAL REGENERATION IN ACTION

Regeneration in Action!

This field had been ploughed probably for a few hundred years.

In early 2000 Reading Borough Council decided to let it grow allowing natural processes to occur.

The grass grew, and seeds from everywhere landed which grew into the trees and shrubs you see today.



**October
2003**

**August
2021**



**With no humans involved, no diggers,
no expense, no posts, no plastic guards !**

In no time the trees and wild life began to move in. The dominant trees were ash, followed by oak and hawthorn.

Many others were coming through, but the story takes a twist, **ash dieback arrived!**

Follow the trail to find out more ..



Natural regeneration
'the messy alternative
to tree planting' by
Catherine Early bbc
futureplanet



www.econetreading.org.uk



NATURAL REGENERATION IN ACTION

Sept 2021

How the field became a wood

So how did the oaks and hazels
get here?

Ask a Jay



'Allochory' !

[Seed dispersal]

Oaks take advantage of the storing behaviour of **jays** [and squirrels] to get their seeds both transported and planted.

These animals put aside food to see them through the winter, often burying acorns in caches around their territory.



Some acorns are inevitably forgotten. Those that are forgotten may germinate to sprout new tree.

A jay can plant 3,700
acorns in a year



QR code for
Woodland Trust
Seed dispersal

A new regeneration area is being set up in the corner of the Meadow, post/ markers will prevent any mowing there so that trees can become established



NATURAL REGENERATION IN ACTION

All Sorts Moving In !



This tree is not a native tree,
it is from another country,
as are several of the trees
Any suggestions ?

There is also an **Andean oak tree** nearby! That is a seed with a story to tell!

At the moment the predominant trees, apart from ash, in this field are oak and hawthorn, which have moved in short distances from the ancient woodlands such as Blackhouse Wood nearby.

How do they get here? Each seed has it's own story. ...



Many species of apples and cherries, and a pear have arrived.



They may not be traditional woodland trees but their blossom and fruit are very welcome to wildlife.



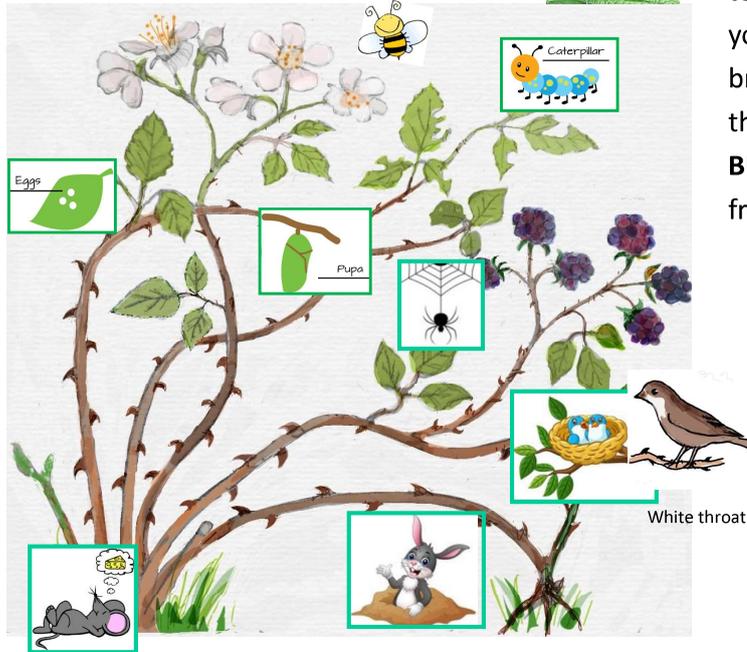
The local Volunteers are trying to keep track of all the tree species here. Any help would be appreciated.



NATURAL REGENERATION IN ACTION



a 'super' habitat



Just some of the wild life in a bramble patch

Brambles ? Good or Bad?

Although a valuable habitat, brambles are very determined, and can grow 3m plus, competing with young trees, bending their branches or preventing them from reaching light **BUT** they do deter deer from nibbling their bark!



*Of course the black-berries are nice!
For every one!*

The FoCC volunteers “halo” a space around a young tree to give it room to grow yet leave some bramble to deter deer.



NATURAL REGENERATION IN ACTION

Birds changing the Landscape

Rowan tree
Mountain Ash

leaf



bark



berries



royalparksBromptonCemetery(
Credit: iStock.com / MikeLane45)

Not just for the birds, the rowan berries, rich in Vit C can be used to make jelly to eat with game!

How did Rowan get here?
'Allochory'!

*Seed dispersal with help from
animals.*

There are rowan trees in Blackhouse Wood. The trees wrap their seed in soft tasty berries which the birds such as thrush, blackbirds and redwings eat and swallow the berry whole. They cannot chew or digest the seed, so later they poop the seed out, and it lands [with a small dose of fertilizer !], and a new tree begins.



NATURAL REGENERATION IN ACTION

What helps plants here thrive, in what was once grassland?



SYMBIOSIS

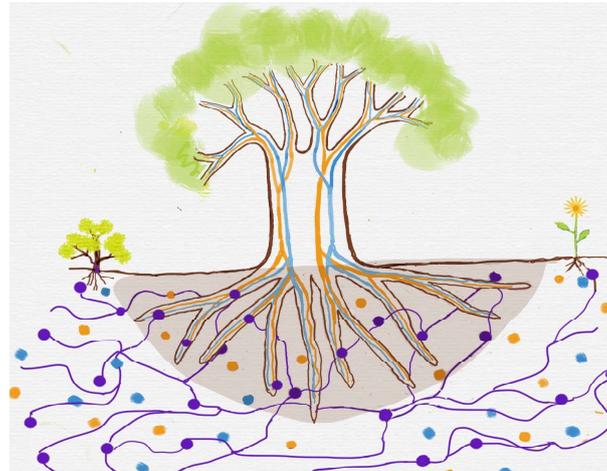


"mycorrhiza: an association between a fungus and the roots of a plant"

use the sun and the chlorophyll in their leaves to make sugars

They collect the other nutrients and water they need for growth from the soil.

Associated fungi help this process and may provide water or essential nutrients from some distance away by colonising the root tissue and exchanging nutrients for sugars at the roots.



Mycorrhizal fungi

Water

Nutrients



MYCORRHIZA

Fungi have no chlorophyll and make their own sugars through photosynthesis.

They spread miles of strings called mycelia through the ground to collect minerals, water and nutrients and may colonise the root tissue of trees where these can be exchanged for sugars.

Photo by Root Rescue

The trees here are benefitting from the established nearby woodlands where the mycorrhizal associations have been in place for as long as the woodland. The fungi are moving in here through the ground, or wind-blown spores or perhaps with clumps of soil on a rabbit's foot.



A Future Woodland Glade ?

Glades and footpaths are important areas in woodland, providing sunshine for flowers .

Hawthorn

leaf



bark



berries



The Hawthorn is one of the first 'pioneers' of new woodland and provides blossom in May for insects and berries in autumn for the birds



Cinnabar moth caterpillars munch their way through ragwort in no time

And then turn into beautiful pink moths

Flowers = insects = birds

Ragwort has a bad name on farmer's fields but here it is making an enormous contribution to 100's of species of insect, including bees.

Other wild flowers in September to see here include wild parsnip, cats ears, thistles and birds foot trefoil, all doing their bit!



Info on ragwort myths

The FoCC volunteers will encourage the establishment of glades in some areas.



Ash Dieback



Recovery?

Less than 5% of all ash trees will survive.

The landscape will change.

It is important that we identify the trees that will survive so that their seed can be saved for the future.

Felling and clearing all the ash is NOT advised: somewhere here there could be a survivor?

Meanwhile dead wood is a useful habitat.

FoCC volunteers and everyone should be looking for the healthy survivors



The fungus spores, land on the leaves causing black spots. The fungus spreads down into the wood where it forms diamond shape lesions on the bark which eventually encircle a branch or trunk cutting off nutrients to the tree.

Once infected the fungus does not go away and the fungus spores remain in leaf litter over winter.



Signs of Ash dieback

How odd that some ash are dead others still struggling and some looking healthy!



For more info on ash dieback



NATURAL REGENERATION IN ACTION

Hornbeam

The 'hard tree'*

leaf



bark



fruit



Called the hard tree as the wood is extremely hard, can stand heavy blows, so is used to make butcher's blocks and skittles!

How did Hornbeam get here?

'Anemochory'

Seed dispersal with help from the wind

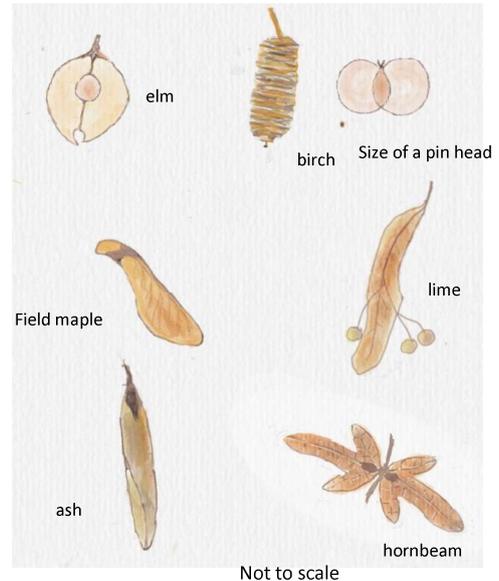
There are not many hornbeam in the woods but somehow the winged seeds have reached here and taken root.



Many trees have winged seeds, each with their own aerodynamic design for travelling in the wind !

The wind changing the Landscape

'Samara' seeds with papery wings



*'Old English'. Horn meaning hard; beam meaning tree



NATURAL REGENERATION IN ACTION

Downy Birch

leaf



bark



fruit



Not a common tree here. It is similar to silver birch but the leaves are more rounded



Join the FoCC volunteers group who are working here with Reading Borough Council

Contact: 077766340

www.econetreading.org.uk for info re conservation volunteering in this area

Regeneration in Action!

This walk shows just some of the positive effects that can be achieved by **Natural Regeneration**.

See even **more** in the field to the west, next to Clayfield Woods and Blackhouse Woods

There are challenges in the future, for these sites, ... such as the

“unhelpful” invaders, one of these is ‘golden rod’

which smothers wild flowers
And

How helpful are rabbits?

But they are cute!

