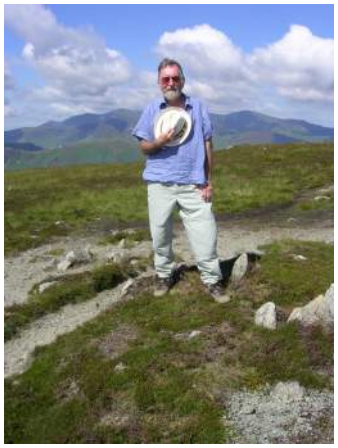
Moor Trees News

Restoring native woodland **spring 2015**

Moor Trees director Graham Burton brings us up to date...



A winter lacking in wild winds, arctic blasts or too much torrential rain helped us finish the planting of Phase 2 at Howton Down (Seale Hayne) and the other two local schemes.

Well done to all the staff and volunteers – they were all treated to a splendid cream tea by Hannah's on the last Sunday.

Unfortunately, the scheme to train village volunteers in tree planting at White Close Field, Slapton had to be called off when there was a problem with funding. Hopefully we will be able to return there this coming winter.

The English Woodland Grant Scheme has now been replaced under the new Countryside Stewardship system. However, the element of native woodland planting under the purview of the Forestry Commission applies only to new schemes over 3 hectares in extent. There are a few exceptions, especially for water quality reasons (0.5ha minimum), but these are very restricted geographically. The support levels are very fair, but we will need to find some more substantial planting schemes, like Howton Down, to take advantage.

So what will happen to small schemes under 3 ha? We will not know until June how they might work but guidance just published suggests that successful applications would need to show that they were linking existing woodland or otherwise enhancing biodiversity on a broader scale.

As I described in the last newsletter our old mini bus was on its last legs and did in fact break down in March. We have however agreed to buy one from the Conservation Volunteers who have closed many of their projects in the South West and had a small supply of their ex-work vehicles. Watch for it at our volunteer days after April, once we have given it a good service and modest new paint job.

...our old minibus is no more!

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** header picture of Howton Down by Chris Newton*

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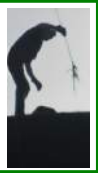
Tree planting

Tree planting officer Jon Brock reports on the massive Howton Down (Seale Hayne) project and gives us an insight into what goes on in the background.



On Sunday 30th November 2014, volunteers began tree planting on Howton Down at Seale Hayne just outside Newton Abbot. This is year 2 of a 3 year project which will eventually result in 12000 trees planted on just under 12 hectares of land.

The site itself has been split into three areas. The eastern end was planted last year with just under 4000 trees The western end was completed with another 4200 trees by 22 February 2015.

However the work for a project like this begins much earlier than the first day of planting . Firstly, **Moor Trees** director Graham Burton works out a planting plan with the landowners. Types of tree to be planted are identified. Areas for particular types of tree, such as wet areas for alder, designated; as are areas to be kept clear of trees. Everything is marked on a master map and given to those of us who are administering the actual tree planting.

The planting area this year consisted of a large flat lower field from which there is a very steep slope leading to a plateau. The slope itself has been left clear of trees, as the intention is that this will develop into a wild flower meadow - great for biodiversity.

Also on the site is a small disused quarry, carved into the hillside and now fringed with mainly oak, ash and hazel trees. There are also a couple of oak trees in the planting areas that are about 200 years old and which will complement the newly planted saplings and the meadows, creating a rich and diverse natural habitat.

The flat base of the quarry was identified by Brian, our volunteer officer as the ideal site to pitch our tent 'headquarters' where we store our tools and equipment and which we use as a refreshment tent and shelter for the volunteers in inclement weather. Brian also set up a brazier outside the tent which is greatly appreciated by the volunteers in cold weather.

We have planted a wide range of native trees including oak, small-leaved lime, hazel, birch, hawthorn, blackthorn, rowan, alder, crab apple, holly, spindle, field maple and sallow. Ash wasn't planted because of restrictions on movement made following the outbreak of the ash 'dieback' fungus infection *Chalera Fraxinea*

On such a large site, most of the trees for each planting season are lifted from our nurseries and brought onto site before planting and 'heeled in' in a trench ready for use as we need them.

We always plant oaks first as these provide a 'framework' to intersperse with other species. Over 1600 oaks and 600 small-leaved lime have been planted so far with roughly a couple of hundred each of the remaining species. This will produce a mainly oak/lime woodland intersperesd with other smaller species.

Carl from Hannah's and his family enthusiastically joined us on most Sunday mornings and was so impressed by our work that he arranged a cream tea at Hannah's for all the volunteers on the last day of planting. This was much appreciated by all the volunteers (especially by John Burden who ate at least half a pint of clotted cream!!!)

I would like to especially thank Brian Daniel and Jon Covey for all their hard work behind the scenes. It has been an especially busy time with a record number of trees planted in one season - around 6000!. And finally well done to all our brilliant volunteers who have enabled an extremely successful planting season at Howton Down.

This season we have also planted 500 trees on land at Ugborough near Ivybridge and 1000 trees at Deancombe nr. Buckfastleigh

...our brilliant volunteers enjoying a cream tea laid on by Hannahs at Seale Hayne and posing for a photo afterwards

Nurseries

While the tree planting goes on there is always a lot of work to do in the nurseries. Nursery manager Jon Covey explains ...

It has been a very busy winter in the nurseries. We have lifted over 6500 trees from cloying clay soil for our planting schemes. Now spring is here the seed we collected in the autumn, having been carefully processed, labelled and stored, has begun to germinate. First out of the traps are the crab apple. The seeds were planted in January and after a couple of weeks they started to emerge from the pips. By the first week in march over 400 had been pricked out and put into root trainers. Another 200 were put in pots. The two seed trays they came from still look as if theY contain a thousand miniature crab apple trees!

Some of the blackthorn stones started to germinate in the fridge during February! If this happens then these germinating seeds have to be sown straight away and all the rest must be sown by the beginning of March. The early sloes we collected from Hembury woods last year have germinated well. The embryo, root, cotyledon leaves and then the true leaves all developed in the space of two weeks!

Having cleared both Broadley and Dartington nurseries of most of the old tree stock it is a great joy to see the first flush of verdant green leaves shoot skywards In a few short months a sea of shiny new saplings will be marching across the recently raised beds!

Snapshots from Howton Down

..the flat base of the quarry ....the ideal site to pitch our tent

...volunteers round the brazier

...a relatively flat part of the Howton Down plantation

...Brian uses his special technique to get the brazier going while volunteers shelter in the tent

Butterflies and woodland

Trustee and volunteer Jill Broome has a special interest in butterflies. Here she explains why butterflies are so important to our native woodland habitats.

We have 59 species of butterfly in Britain and 16 of these are woodland specialists , relying on woodland for part or all of their range. Any major losses in butterfly populations will have serious impacts on woodlands because of the significant role butterflies and moths play in food webs and as pollinators and herbivores.

The value of butterflies as indicators of woodland biodiversity has been recognised for some time. There has been a decline in butterflies (recorded by the *UK Butterfly Monitoring Scheme, 1990*). This is a warning sign that all is not well in our woods.

How can broadleaf trees help?

We know that species associated with mature woodlands are doing well : **Speckled Wood**, **White Admiral**, **Silver-washed Fritillary** and **Purple Hairstreak**. The specialist butterflies associated with woodland clearings have done worst of all : **Pearl-bordered Fritillary**, **Small Pearl- bordered Fritillary** and **Duke of Burgundy**, are now among the UK's most threatened butterflies.

Pearl Bordered Fritillary

These butterflies need open spaces, woodland glades, young broadleaf planting and coppiced woodlands and woodland connectivity. A diverse, uneven structure of trees will enhance butterfly populations. Alongside newly planted trees providing food source, butterflies will benefit if there are mature trees, dense regrowth and sunny glades with warm unshaded conditions.

Trees which provide foodplants for butterfly caterpillars

Alder Buckthorn and **Buckthorn** provide food for the **Brimstone** caterpillar; eggs are laid on the leaves.

Blackthorn is an important food source for the **Brown Hairstreak** caterpillar; eggs are laid on the low, young shoots of the **Blackthorn**. In summer the adults are elusive, flying in **Ash** trees or hiding in hedgerows.

Brown Hairstreak

Holly hosts the **Holly Blue** caterpillar which feeds on the berries, buds and terminal leaves. The **Holly Blue** caterpillar also feeds on **Spindle**

The **Purple Emperor** caterpillar feeds mainly on **Goat Willow**, although it breeds on **Grey willow**. After this caterpillar's first moult it resembles a velvety green slug with horns before hibernating in November in the fork of **Willow** branches. The following June it forms a chrysalis which resembles a leaf shoot. The adult **Emperor** butterfly is on the wing from mid-July.

Purple Emperor caterpillar

The most widely used foodplant for the **Comma** caterpillar is **Common Nettle** but other foodplants are **Elm** and **Willow**. They are hard to spot as their survival camouflage has black and white markings resembling bird droppings!

What do woodland butterflies eat?

Nectar is the food of many butterflies, but in woodland many flowers bloom in the spring before the tree cover shades them out – too early to provide a source of food. Such woodland species as the **Comma** and **Peacock** feed on rotting fruit in the autumn, while other species such as **Brown Hairstreak** and **White Admiral** rely on aphid honeydew which coats tree leaves in the summer. Apart from honeydew and bramble blossom the **White Admiral** has an unusual choice of food – cuckoo spit, which is rich in sugars and amino acids.

White Admiral

The male **Purple Emperor** has rather unsavoury feeding habits – he visits muddy puddles, carrion, urine and dung for essential minerals before returning to the high canopy of **Oak** trees.

Purple Emperor

When to spot the woodland butterflies

Spring from March:
Brimstone, **Speckled Wood** and **Holly Blue**

Late April to June:
Small Pearl - bordered, **Duke of Burgundy**, **Pearl - bordered** and **Silver-washed Fritillaries**, **Peacock** and **Comma**.

Summer from mid-June:
White Admiral, **Brown Hairstreak** and **Purple Emperor**.

Two simple things that woodland managers can do for butterflies:

* **open up new areas with rides and junctions for flowers and shrubs;**

* **encourage sallow and honeysuckle.**

Over 60,000 trees in 15 years of planting!

2001/3 Scorriton Down Buckfastleigh SX684685 2.9 ha **4530 trees**	2003/4 Hillyfield Harbourneford SX719621 1.69 ha **1430 trees**	2004/5 Grimstone Manor Horrabridge SX517705 0.4 ha **360 trees**	2004/5 St. Anthony's Ilsington SX775760 0.42 ha **378 trees**	2004/5 Middle Heltor Farm Dunsford SX795874 2.1 ha **1129 trees**	2005/6 Courtgate Orchard Harbourneford SX715623 4.53 ha **4595 trees**
2005/7 Southcombe Barn Widecombe SX713764 1.58 ha **1105 trees**	2006/7 Dean Burn Nr. Buckfastleigh SX695664 4.06 ha **2785 trees**	2006/7 Coombe Barton Bickleigh SX516623 1.69 ha **1325 trees**	2006/7 Lemon Wood Haytor Vale SX771757 9.82 ha **5126 trees**	2007/8 Monkswell House Horrabridge SX518707 0.24 ha **230 trees**	2007/8 Southway Farm Widecombe SX725767 0.32 ha **430 trees**
2007/8 Central Park Plymouth SX474560 0.55 ha **527 trees**	2007/8 Wedlake Peter Tavy SX537773 1.9 ha **1795 trees**	2007/9 Sharpham Estate South Hams SX810585 2.7 ha **2838 trees**	2009/10 Miscellaneous plant-ings including Dart-mouth School 0.5 ha **400 trees**	2009/10 Bear Wood Nr. Chudleigh SX852797 4.79 ha **3967 trees**	2009/10 Burlands South Brent SX693519 1.24 ha **1171 trees**
2009/11 HMPD Princetown SX5877742 1 ha **896 trees**	2010/11 Doug's Hillyfield Harbourneford SX723623 2.24 ha **2580 trees**	2010/11 Sousson's and Pen-lee Farms Postbridge 1.11 ha **1243 trees**	2011 Soussons Hedge 0.5 ha **2500 trees**	2011/12 Horner's Tongue Morleigh 0.5 ha **400 trees**	2011/12 Badworthy Nr. South Brent 1.8 ha **1800 trees**
2011/12 Small sites—Ben, Torview, Burlands 1 ha **1000 trees**	2011/12 Ben's Wood Ashburton SX752700 1.01 ha **973 trees**	2011/12 Horseshoe Paddock SX914712 0.4 ha **658 trees**	2011/13 HMPD—Biffa reser-voir project SX587742 1.5 ha **1200 trees**	2012/13 Mill Lane SX887677 0.63 ha **390 trees**	2012/13 Rexon Meadows SX410882 0.9 ha **1175 trees**
2012/13 Various small sites 0.6 ha **1000 trees**	2013/14 South Milton SX680416 1.6 ha **1050 trees**	2013/14 Throwleigh SX668908 1 ha **440 trees**	2013/14 Howton Down yr 1 SX820730 3.7 ha **2890 trees**	2014/15 Howton Down yr 2 SX820730 4.2 ha **4200 trees**	2014/15 Ugborough 0.4 ha **500 trees**
2014/15 Deancombe Nr. Ashburton 1ha **1000 trees**					

2001 to 2015
60016
trees!

TREES

The hawthorn

***Graham Burton** focuses his attention on this 'quintessential Dartmoor tree'*

And every shepherd tells his tale
Under the hawthorn in the dale
John Milton
L'Allegro

Unassuming, overlooked, referred to disparagingly as 'just scrub', the Hawthorn could stake a claim for being the quintessential Dartmoor tree. It has inspired poets, is hugely important in mythology and symbolism, has provided food and medicines and is extremely valuable to wildlife. And above all else it survives, providing the only shelter at times on inhospitable moor, curving gracefully away from the prevailing winds.

The Common Hawthorn (*Crataegus monogyna*) is one of two native hawthorns. It is also known as Thorn Apple, May-tree, or Whitethorn. 'Haw' was originally an Old English term for hedge. It will grow in any soil except an outright bog. It is very tough and hardy and copes well with strong winds on exposed hillsides and coastal sites.

It grows in all types of soil and can reach heights of up to 30 feet (9 meters). The bark of a young tree is smooth and grey but as it grows and develops with age it becomes gnarled and rutted with ridged fissures and can live to well over 400 years.

By late March into April the Hawthorn's leaf-buds open and pale green leaves appear on its branches. Leaves are around 6 cm in length and comprised of toothed lobes. They turn yellow before falling in autumn.

Interspersed with the leaves are masses of tiny white flower buds, which when open from May to June reveal flowers with five white petals surrounding stamens with bright pink heads.

Both male and female reproductive parts are contained within each flower, behind which is a single seed-vessel that produces a separate fruit; these begin to appear in July and ripen in October, by which time they resemble bright red miniature apples - the "haw".

Wildlife value

White and odorous with blossom,
framing the quiet fields,
and swaying flowers and grasses,
and the hum of bees.
F. S. Flint, 1885-1960

Common Hawthorn can support more than 300 insects. It is the food plant for caterpillars of many moths, including the Hawthorn, Orchard Ermine, Pear Leaf Blister, Light Emerald, Lackey, Vapourer, Small Eggar and Lappet. Its flowers are eaten by dormice and provide nectar and pollen for bees and other pollinating insects.

The haws are rich in antioxidants and are eaten by many migrating birds such as Redwings, Fieldfares and Thrushes, as well as small mammals. The dense thorny foliage makes fantastic nesting shelter for many species of bird.

How we use hawthorn

The wood of the Hawthorn is hard with a fine grain and lends itself to a beautiful polish, as such is used for making small luxury items such as walking sticks, handles for knives and daggers, and other fancy turned objects. Charcoal made from its wood has been said to melt pig iron without the need for a blast furnace.

The young leaves and flower buds, which are also edible, are known as "bread and cheese" in rural England and used to be eaten by country children. The leaves themselves, if picked in spring when still young, are tender enough to be used in salads. The haws are most commonly used to make jellies, wines and ketchups. Haws are rich in vitamin C and has strong antioxidant properties.

A decoction of the berries has been used as a remedy for diarrhoea and dysentery due to their astringent qualities, and the berries, flowers and leaves are good for the digestive system and promote appetite.

Folklore and myth

The Hawthorn tree has long been associated fertility and its blossoms are used to symbolise love and the union of couples in marriage. Early on the dawn of Mayday, men and women would bathe in the dew of the Hawthorn blossom to increase health, luck and beauty. Woman who washed their faces in it would become beautiful, while men who washed their hands in it would become skilled craftsmen.

However hawthorn also has darker associations. In Teutonic funeral rites, the wood was burned on funeral pyres in the belief that souls would be carried to the afterlife by the smoke that rose from the pyre, and so it took on a grimness which led to superstitions about it. It was believed to be a fairy tree, and the evil fairies that dwelled in it would severely punish anyone who harmed it.

This infographics chart is reproduced with the kind permission of **Dr. Janet Cotter**, senior scientist at the **Greenpeace** International Science Unit. Janet is also chair of **Moor Trees'** Trustees.

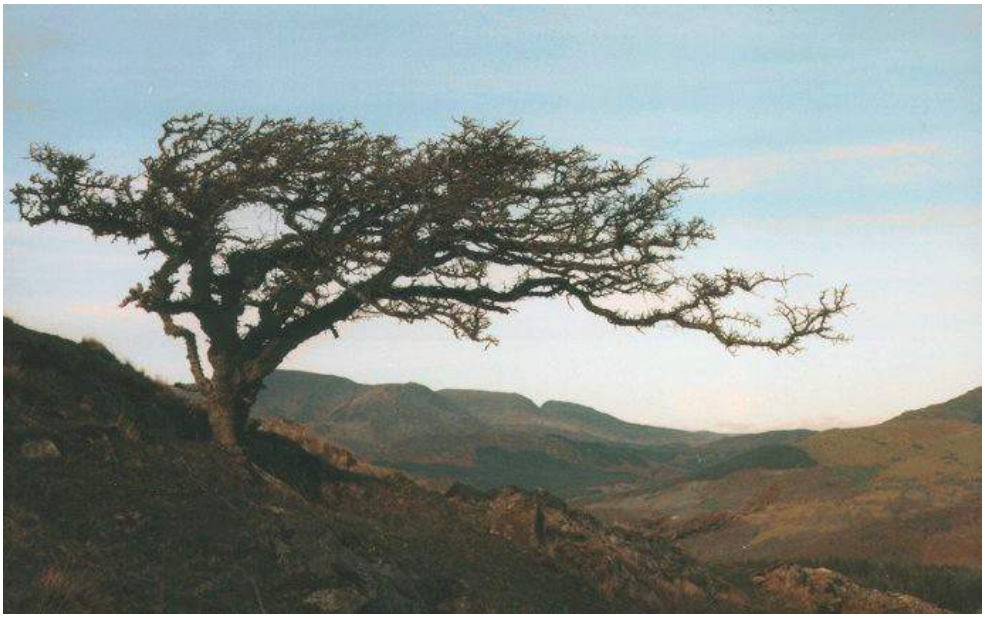
The Hawthorn Tree

ACROSS the shimmering meadows
Ah, when he came to me!
In the spring-time,
In the night-time,
In the starlight,
Beneath the hawthorn tree.

Up from the misty marsh-land
Ah, when he climbed to me!
To my white bower,
To my sweet rest,
To my warm breast,
Beneath the hawthorn tree.

Ask of me what the birds sang,
High in the hawthorn tree;
What the breeze tells,
What the rose smells,
What the stars shine--
Not what he said to me!

Willa Cather (1873-1947)



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