



Moor Trees News



Creating native woodland

autumn 2015



In 15 years we've planted over 60,00 trees or 66 hectares of native woodland!

Director Graham Burton brings us up to date



At last DEFRA has sorted out all the new rules for woodland management and creation grants!

The old scheme has now been replaced by a new Countryside Stewardship system. As I reported earlier, the element of native woodland planting under the purview of the Forestry Commission applies only to new schemes over 3 hectares in extent. The exception is where there are water quality and flooding issues, mapped by the Forestry Commission on its *Land Information System*. This means that we can discover early in the process which sites may qualify, as long as they are over 1.0 hectare. To put it into context, **Moor Trees** has five queries for possible planting sites next year and four qualify under the water 'rules'.

So what will happen to other small schemes, under 3 ha? There does not seem to be any option under Stewardship for these sites but if they find it hard to source enough larger schemes.....

Moor Trees has now been planting native trees for 15 years and the Trustees have taken a fresh look at our vision and work. See page 2 for more detail, but suffice to say that as of today our volunteers have planted over 60,000 trees and created 66 hectares of native character woodland – in old money that is 164 acres or 110 football pitches or 40 Test match cricket fields!

Well done to everyone who has been a part of this and let's look forward to much more in the future.

Best wishes
Graham Burton
Director

Check out our new vision on page 2 or at www.moortrees.org

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Alan Featherstone Watson of Trees for Life and Chair of Moor Trees Trustees Janet Cotter



Some of the planting gang without whom none of this would be possible!

A new vision for the Dartmoor landscape!

Graham Burton explains the new Moor Trees Mission Statement

Moor Trees has been planting native trees on and around Dartmoor since 2001. In that time we have created 66 hectares of native character woodland using over 60,000 trees, mostly nurtured and grown in our own nurseries from locally collected seed. This has been achieved by our dedicated team of volunteers, supported by students from Plymouth University, local conservation groups, company team building days and many local families – a true community led venture.

We have planted on the fringe of the open moor at Scorrison and have increased the woodland cover of the Avon valley. We have supported over 40 landowners who have made the lifelong commitment to create a native forest that they will never see to full maturity, a truly visionary choice. We now want to do more, so the Trustees have debated and produced a new Mission Statement for **Moor Trees** which incorporates a new vision for the moor. We know that our volunteers will keep planting trees, but even with their endeavours we understand that we are only making a small contribution to Dartmoor's current native forest cover of about 7,000 hectares, only 7% of the park area. To achieve the level of woodlands we believe that should exist we must widen our appeal and try to express our vision of the landscape to everyone who loves Dartmoor as we do.



We want to start a dialogue with all the communities and stakeholders on and around Dartmoor, explaining our views and calling for a concerted effort to bring wildlife rich, amenity friendly natural woodlands, with all their associated practical benefits, to every parish and hamlet. We want to persuade people that woods are not just a feature of the deepest valleys, but could and should be spread more widely, as they once were. We will present our ideas through talks with village groups, displays at public events and articles in local the press and magazines; not just telling but listening too, looking for partnerships and collaboration to take the vision forward.

See the new mission statement at www.moortrees.org

We are not calling for a return to the wildwood! We understand the long history of the moor and the part it has played in human endeavour. We understand that residents and visitors alike cherish the open landscapes with far reaching views. We believe that there is plenty of space for both – many of the shallow valleys and dells on the moor could fill with trees to no detriment of the view. We want to start a dialogue with all the communities and stakeholders on and around Dartmoor, explaining our views and calling for a concerted effort to bring wildlife rich, amenity friendly natural woodlands, with all their associated practical benefits, to every parish and hamlet. There are plenty of examples of this starting to occur naturally where the shifting tides of agricultural economics have meant fewer grazing animals for a time.

To restore woodlands to Dartmoor is to restore part of ourselves. Less managed, more natural landscapes offer a way of understanding and reinterpreting our relationship with the natural world. The restoration and regeneration of just some of the Dartmoor woodlands would help the return of natural environments to one of the few remaining areas in the south of England where this could be possible, restoring forest in a way that takes account of the needs and aspirations of local and regional communities.



Trees already recovering where grazing levels have been reduced

AGM



Matt Underwood was at this year's AGM

Moor Trees AGM took place on Saturday 26 September. The meeting took place once again in Leusdon village hall. With beautiful moorland views and wooded vistas, the village near Poundsgate made the perfect setting for a **Moor Trees** event.

The AGM is always a great chance for trustees, members and volunteers to meet up, chat and catch up. The meeting is an important date in the **Moor Trees** calendar for reviewing the charity's work and future direction, but it is also a social occasion and a celebration of our achievements.

As usual the meeting was chaired by chair of the Trustees Janet Cotter. The minutes of last year's meeting were approved unanimously, as were the annual report and the accounts. Our membership officer Chris Curry reported that membership numbers remained largely unchanged at around 100 and it was agreed that membership payments would remain the same.



...a chance to meet up, chat and catch up

After this came the important matter of the election of the Trustees. We were sorry to lose Michelle Hollox who had decided to stand down due to the long commute involved for her to attend trustees' meetings. The remaining trustees all stood again and were all re-elected unanimously.

The formal meeting was brought to a close with the presentation of volunteer certificates. This is a great way to acknowledge the incredible amount of work which the volunteers do with an amazing total of over well over 1600 hours of volunteering carried out.

Moor Trees director Graham Burton then gave a

talk about the future of the organisation. Graham presented the **Moor Trees** Vision, a document put together by Graham, Janet and the Trustees, after much discussion,

which outlines the directions in which we would like to move forward.



Graham Burton gives a vision of the future...

This document will be available to potential funders and stakeholders in Dartmoor to explain **Moor Trees**' core values and beliefs and how in the future we would like to work more closely with many of the stakeholders on Dartmoor such as the commoners, farmers, the Dartmoor National Parks Authority and the Duchy to encourage re-generation of wood-

land. The key to our strategy will be changing hearts and minds when it comes to trees being part of the Dartmoor landscape.

After a delicious lunch provided by Sue Burton we went for a pleasant walk on nearby Blackadon Down to collect seeds. Afterwards we returned to the hall for refreshments before departing.



Collecting seeds on Blackadon Down

More about the Moor Trees Vision on page 2

Major certificates of achievement for volunteering

Outstanding contribution (over 500 hours): Jon Covey, John Burden

Over 200 hours: Paul Harrison

Over 100 hours: Judith Allen, Robin Lee, Claire Truscott, Naomie Wisbey, Tom Murphy, Jill Broom, Chris Curry

Over 75 hours: Ellie Standen, Graham Beer

Over 50 hours: Lottie O'Toole, Tim Ferry, Tara Nickells, Susan Widlake, Guy Chaplin, Adam Smith, Chris Newton, Tobi Rottwinkel

Research

Environmental science student Tom Murphy explains the research he is carrying out at the Moor Trees Howton Down plantation



I am a third year student at Plymouth University and a regular Sunday volunteer with Moor Trees. Since moving to Devon three years ago from Suffolk to study a foundation course and later environmental science I have enjoyed a fantastic three years volunteering with Moor Trees. I have met some wonderful people and I have been to some superb places. One of these places is Howton Down, situated at Hannah's at Seale-Hayne near Newton Abbot and with panoramic views across the Teign estuary and the south Moor.



Howton Down

As part of my Environmental Science degree and in conjunction with Moor Trees and with permission from Hannahs at Seale-Hayne I have been carrying out research on Howton Down. The aim of my research project is to understand and quantify the success of the tree saplings Moor Trees planted in the winter of 2013/2014 with relation to surrounding environmental factors. The data would allow me to identify what factors, if any, are adversely affecting the trees planted, and help inform Moor Trees future planting and after-care strategies.



using a photosynthesis analyser to measure stress

My research looked at three species of tree: English Oak (*Quercus robur*), Small leaved Lime (*Tilia cordata*) and Field Maple (*Acer campestre*). My research methods involved measuring tree height, stem diameter and tree condition. I also took measurements such as the length of this year's growth and stress readings from the leaves using a device called a photosynthesis efficiency analyser (PEA). As well as tree data, I also recorded the height and composition of the ground flora which I did using a drop disk (basically a ruler and a disk of plywood) and by identifying and counting plant species within a 50cm x 50cm frame (quadrat) around each tree. I also measured the levels of water in the soil using a theta probe and collected soil samples for analysis of nutrient levels.



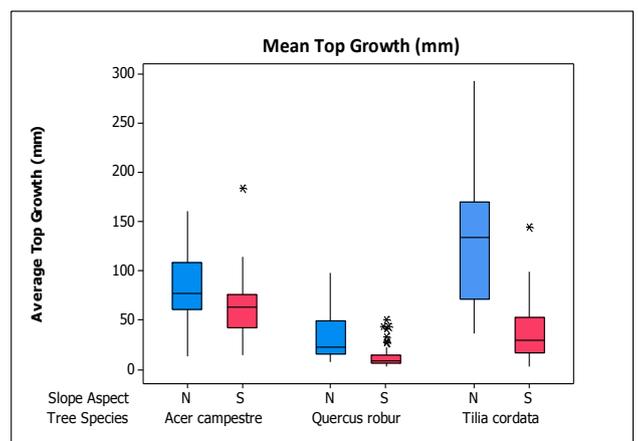
using a drop disk to measure the height of ground flora

All the data was collected over the course of 6 weeks from mid-June to the end of August and in total I sampled 223 saplings during lots of long and tiring days. The results should help identify which ground flora species are particularly competitive and which are detrimental to sapling growth. They will also help identify the method of competition i.e. What are they competing for? Water? Nutrients? And also the results will help improve our knowledge of the performance of Field Maple, Oak and Lime saplings in relation to the surrounding environment. All this information will hopefully improve the planting success of future Moor Trees plantations.

The data is still being processed but initial results suggest large differences in tree performance between the North and South aspects at Howton Down, with the Small Leaved Lime doing particularly well on the Northern aspect:

A big thank you to all the people who have given me guidance, support and a willing pair of hands. Without this help my project would not have been possible. I will be publishing my complete findings in April.

Tom



Boxplot graph showing average tree growth for Field Maple, Oak and Small Leaved Lime on Northern and Southern facing slopes. (For a simple read of the graph: the horizontal line within each box represents the median (middle) measurement of the ordered measurements and the rest of the measurements are distributed proportionally in the box above or below the line)

With the United Nations Climate Change Conference in Paris about to commence, Janet Cotter urges us to do our bit to combat climate change!



As governments gather in Paris to forge a new global agreement for tackling climate change, we look at the connections between climate change and Moor Trees. The new climate deal is expected to include an element of protection for tropical forests – to protect the carbon stored within the trees.

Although, of course, Devon is not tropical, planting trees with **Moor Trees** also helps. Moor Trees creates new woodlands which, not only helps to lessen climate change, but also helps us, our woodlands and

the wildlife they contain, adapt to climate change. Trees take up carbon, both as they grow and also as mature trees. A tree is about 50% carbon by weight so the more trees we plant, the more carbon is taken out of the atmosphere. By itself, planting trees won't save the climate as we also need to reduce our carbon emissions from fossil fuels such as oil and coal. The carbon released from fossil fuels would need to be balanced by many millions of trees, growing at an impossibly rapid rate to absorb that much carbon, that quickly.

Although it is not possible to truly 'offset' carbon emissions or become 'carbon neutral' by planting trees, **Moor Trees** planting can increase the resilience of existing woodlands. Many remnant woodlands exist as small frag-

ments, vulnerable to wind and drought. New native woodlands can provide corridors, linking these fragments together and enlarging, or buffering, them. This makes them less vulnerable to extreme weather events, which are predicted to increase with climate change.

New woodlands also provide habitats for a wide range of very special wildlife, and the increased connectivity of woodlands gives that wildlife a better chance of migrating in response to climatic changes.

Another important role of woodlands is they act as a 'sponge' - allowing more rain to soak through the soil rather than run off the surface. In this way, woodlands are important in helping humans adapt to climate change, as they can help reduce floods as our



rainfall becomes more erratic.

Think global, act local. Come volunteering with **Moor Trees**. There are many opportunities, from seed collecting and

**Think global!
Act local!**

taking care of our saplings in the nurseries, through to planting them out in our new woodlands. There's something to suit everyone. And of course, there's always a hot cuppa and slice of cake as an extra reward!



All details on the Moor Trees website: www.moortrees.org

Nursery Manager Jon Covey describes the joys of seed collecting, the less joyful seed processing and what motivates him.



Jon collecting rowan berries

Seed collecting with Moor Trees is an enjoyable activity on a bright autumn day whether you are 7 or 70 years old. Essentially it is a lovely walk through an open area of ancient Dartmoor woodland with maybe a river running alongside, picking berries, nuts, crab apples, catkins, cones and acorns from trees as you meander along.



...seed collecting with Moor Trees is an enjoyable activity

We grow 14 native tree species from this collected seed to produce approximately 6 to 7 thousand trees each year for Moor Trees planting sites. To allow for germination rates that are rarely better than 25%, we collect and process over 25,000 tree seeds each autumn. We aim to achieve a good genetic mix by collecting ripe seed from at least two ancient woodland sites. And also for each species we try to collect from as many different trees as is possible.

Seed processing can be a time consuming and messy business and is not often a favourite activity for our volunteers! However, it is a very important part of growing trees from seed that berries from a tree have the flesh - which inhibits germination - removed from the seed and then be rinsed thoroughly to produce a clean seed.



...seed processing can be a time consuming and messy business!

Once the seed has been processed and dried it is weighed, labelled and stored, usually in a fridge to replicate the winter cold.

On many an autumn afternoon when you have processed 1000 hawthorn berries and there are a few thousand more to go, where is the motivation to carry on? For me, it is to take an OS map of Devon, open it out and look at it. Where is the woodland? It looks like a desert to me. A few scraps of woodland dotted around, usually a narrow band of trees following a river course. Take a closer look at the patches of green on the map and they often turn out to be conifer plantations or a mixture of deciduous and conifers. Very little native deciduous broad leaved woodland and even less that can be defined as ancient woodland. We need more trees!



Blackthorn berries



Hawthorn berries



Acorns

Native
trees

Graham Burton continues his series on native trees with a look at the Blackthorn

Cascades of white flowers which emerge before the leaves in March are sure signs of the blackthorn, unlike hawthorn which blooms in May after the leaves develop. It also rarely stands alone on the moor, being much more a lover of hedgerows where it has always been widely planted as a stock proof barrier.



Cascades of white flowers are a sure sign of the blackthorn

Blackthorn, *Prunus spinosa*, is named after its thorny nature and very dark bark and can grow up to 10m (35ft) tall in sheltered spots. The fruit, called a "sloe", is black with a purple-blue waxy bloom, ripening in autumn, and harvested traditionally in October or November after the first frosts. Sloes are thin-fleshed, with a very strongly astringent flavour when fresh. The word "sloe" is rooted in ancient north European words for any form of plum.



sloes

Value to wildlife

Blackthorn has around 109 species of insect associated with it. The foliage is eaten by the larvae of many moths including emperor moth, willow beauty, common emerald, November moth, brimstone moth, and feathered thorn, and also by black and brown hairstreak butterflies.

The flowers are a valuable early source of nectar for bumble bees, and early emerging butterflies, especially comma and holly blue. The sloes are eaten by robins, thrushes, starlings, and crows and the thick protective hedges are used for nesting sites by many small birds, including blackbirds and dunnocks.



Brown hairstreak butterfly

Mythology and symbolism

Unlike most of the ancient forest trees, the Blackthorn appears to be peculiarly our own. There is little or no association with the mythical traditions of other civilizations, and the stories of old with mention of the tree or fruit are solely Celtic.

Superstition tells us that the devil pricked the fingers of his victims with a sloe thorn and sealed the deals he made in the resulting blood. Because a scratch from the sloe bush was apt to go septic if unattended, it was thought to be poisonous. Witches burned as heretics were sometimes accompanied into the fire with their blackthorn wands or staffs, and branches of it were thrown in to feed the flames.

The starry blossoms were considered unlucky and not worn as a decoration or brought into the house. They were associated with death, probably because they bloom on the bare, thorny black branches at winter's end. A spell of bad weather that often coincides with blackthorn flowering is known as a 'blackthorn winter'.

Uses for blackthorn

The fruit is similar to a small damson or plum, suitable for preserves, but rather tart and astringent for eating, unless it is picked after the first few days of autumn frost. This effect can be reproduced by freezing harvested sloes. In ancient times sloes were buried in straw-lined pits and left for a few months to ripen and make them sweeter. A pit full of sloe stones was found at a Neolithic lake village in Glastonbury. Evidence of the early use of sloes by man is found in the famous case of a 5,300-year-old human mummy discovered in 1991 in the Alps along the Austrian-Italian border; among the stomach contents were sloes.



In rural Britain, so-called sloe gin is made from the fruit, though this is not a true gin, but an infusion of gin with the fruit and sugar to

produce a liqueur. Sloes can also be made into jam and used in fruit pies.

The juice dyes linen a reddish colour that washes out to a durable pale blue.

The wood is not generally valued, but it is hard and dense; straight blackthorn stems were traditionally used to make shillelaghs (*a club-like weapon*) in Ireland.

From Forest Flame to snowy pine, O I will keep, by heart and hand, The hawthorn and the blackthorn mine : Of all the trees that I have known,

On every road, however long—

For hawthorn flower is memory's own And blackthorn boughs as faith are strong.

O never a tree but fairly grows ! - Slight birch, the Lady of the Woods, And oak, and ash, and sweet wild rose, And cypress in starlit solitudes : Laburnum and lilac, cherry, larch, Red rowans in the hills of home, Slim willow stems that flower in March, And ilex by the salt sea foam.

Yes, elm and apple, and beechen dales,

Dim silvery firs by silent seas—

But still shall rove Time's nightingales Thro' hawthorn trees and blackthorn trees : And holier yet, in music's wake, As holly's lamps when autumn ends, Sweet hawthorn blooms for sorrow's sake, And blackthorn boughs are pilgrims' friends.

In hawthorn red by upland ways, Or white as cloud in evening dells, I will keep lovely all my days The magic hours that need no bells : And when the blackthorn spills its load Of stars too bright to let me rest, I'll cut a stick, and take the road, And walk into the crimson West.

HAMM MACLAREN.



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Jon Covey	Broadley Nursery Officer
Paul Hammett	HMP Dartmoor project (OPEP) (to August 2015)
Chris Curry	Membership Officer
Paul Harrison	Newsletter Editor

Our trustees:

Janet Cotter (chair)	Paul Harrison
Guy Gilmore (secretary & Treasurer)	Matt Underwood
Jon Brock	Adam Griffin
Jill Broom	Jon Covey

Our patrons:

Sir Jonathon Porritt
Stephan Harding (Schumacher college)
Satish Kumar (*Resurgence* magazine and Schumacher College)
Pen Hadow (Polar explorer)
Alan Watson Featherstone (Trees for Life)

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