

'Britain's rainforests' in danger as gardeners love affair with peat continues

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While the proposed sell off of UK forests attracted a chorus of criticism, the destruction of peat bogs continues almost unnoticed. Sam Campbell reports from current flashpoint Chat Moss, near Manchester

'Lowland raised bogs are an internationally and nationally important habitat which supports many rare and threatened species', David Crawshaw, Mossland Campaign Manager at the Lancashire Wildlife Trust, told the *Ecologist*. 'These include Merlin, Curlew, Lapwing, Whimbrel, Snipe, Soprano Pipistrelle (a type of bat), Brown Hare, Common Toad, and Water Vole. Also, they are highly important for their invertebrate populations.'

But Britain's peat bogs are in serious danger - centuries of drainage for farming and digging for fuel have damaged or destroyed over 90 per cent of the UK's lowland bogs, according to environmentalists, who say they are irreplaceable.

As demand for fuel wanes and ecological awareness increases, the few remaining peat bogs might be expected to have been granted a reprieve. But bogs now face a new threat; gardening. According to the Department for Environment, Food and Rural Affairs (DEFRA), the UK currently gobbles up 3 million cubic metres of peat every year for horticulture. While 30 per cent is used by professional growers, the majority, 69 per cent, is destined for amateur gardeners, predominantly as multi-purpose compost and 'grow bags'.

The Government has tried to step in, advising a complete halt on peat use in the UK. Many bogs are already protected by legislation dating from the 1990s, but others, mainly those not deemed important wildlife habitats, remain at risk. In a recent consultation on peat extraction, DEFRA suggested the phase out of peat in Government and the public sector by 2015, in the amateur gardener market by 2020, and by 2030 for professional growers of fruit, vegetables and plants.



MP Barbara Keeley is a critic of proposed peat extraction at Chat Moss.

'The horticultural industry has made real progress in reducing peat use, but I want to see peat eliminated from the amateur gardener market by 2020,' said Natural Environment Minister Richard Benyon in December. 'This will be challenging, but more sustainable and good quality peat-free alternatives are already available, and I believe it is achievable for peat to be phased out in all markets before 2030.'

These goals are voluntary, however, and a previous Government-set voluntary target for industry to reduce peat in compost by 2010 has already been and gone. DEFRA estimates the UK market is still only 57.5 per cent peat free, far below the target of 90 per cent.

The National Farmers Union says it wants to see peat replaced by sustainable alternatives but argues that a complete phase out in the horticulture sector by 2030 is unachievable.

Harvesting

Perhaps one of the most significant barriers to curbing peat usage is the public perception that UK bogs are no longer being harvested. The majority of peat used in the UK, 57 per cent, is imported, mainly from the Republic of Ireland and the Baltics, according to DEFRA. But that still leaves a significant 43 per cent sourced from the UK's hard pressed bogs.

One of the sites where controversy about peat extraction rages is Chat Moss, close to Irlam, a non-descript suburb just off the M60 ring road north of Manchester. Irlam is the last gasp of Manchester and Salford's grey sprawl, and at the northern edge of the town, gritty council estates abruptly give way to a bucolic plain of verdant pastures. Deep drainage ditches crisscross the large, flat fields, drawing off the water that once saturated this former bog.

Between grassland, turf farms and arable crops, just a few fragments of the black, fertile land remain uncultivated, including Chat Moss. Depending on who you speak to, Chat Moss is either a barren black bed of valuable peat, or a potentially perfect paradigm of regeneration and rebirth.

After planning permission for peat extraction from Chat Moss expired in 2010, William Sinclair Horticulture, one of the UK's leading producers of commercial horticulture and

branded garden products, applied to Salford Council to extend extraction for a further 15 years until 2025.

In its planning application, obtained by the *Ecologist* through a freedom of information request, William Sinclair stresses that it 'is committed to continually strive to reduce... negative environmental impacts,' including a promise 'to harvest peat from areas of low current conservation value.' The company has pledged to turn Chat Moss over to amenity usage after extraction halts in 2025.

Mark Way of William Sinclair Horticulture told the *Ecologist* that peat extraction may have actually helped protect Chat Moss. 'Ironically, without [peat] extraction at Chat Moss, the land would already be farmland - which will not support bog land species—as can be testified by looking at the adjoining land.'

Even the Lancashire Wildlife Trust's David Crawshaw conceded that, due to previous peat extraction, Chat Moss currently has 'little or no ecological value.'

'The site is currently bare peat and there is no trace of the bog vegetation that once thrived on it, and is intensively drained,' he said. 'However, its importance lies in that it can be restored to lowland raised bog.'

Nevertheless, Barbara Keeley, Labour MP for Worsley and Eccles South, told the *Ecologist* that many locals were against further peat extraction. 'My constituents do not believe that peat extraction should continue for another 15 years and I agree with them,' she said. 'Chat Moss contains the largest block of semi-natural woodland in Greater Manchester. Such woodland can support rich and rare wildlife communities ... [and this] rare and declining habitat can only be found on peat substrates. This land is one of the UK's rarest and most valuable habitats. Ending peat extraction on Chat Moss means that work can begin on returning the land as a natural habitat.'

Although Chat Moss has been 'scraped clean', the site can be restored by blocking drainage channels to flood the land, followed by the re-introduction of species from other wetland sites. In fact, nearby mossland remnants already support a wealth of wildlife.

'Over 1,000 species of invertebrate have been found on Astley Moss,' said Dave Crawshaw. Astley Moss, which is designated as both a Special Area of Conservation under European law and a Site of Special Scientific Interest under UK law, is less than 1 mile from Chat Moss and is one of the last refuges in Greater Manchester for the Common Lizard (*Zootoca vivipara*).

Ecology vs economics

Peat is sometimes referred to as a renewable resource (such as in Finland), but this is true only in the loosest sense. Peat deposits grow by only a millimetre a year, laid down by the organisms that inhabit bogs, such as mosses. A 10-metre-deep peat bed that takes around 9,000 years to form can be completely stripped in a few decades.

William Sinclair Horticulture stress in the Chat Moss planning application that 'sufficient depth and quality of peat would be retained on completion of the proposed extension to enable the restoration of an active bog.' Yet, the extraction of 1.5 to 2 metres of peat will delay the proposed regeneration of Chat Moss, say environmentalists.

MP Barbara Keeley noted that Salford Council has already outlined its intention to return Chat Moss to its original form as a natural habitat, ending peat extraction. 'Granting an extension to continue peat extraction will run counter to the Council's plan and Vision for the Mosslands,' she said. 'Salford City Council should hold firm on its plan to restore the land at Chat Moss back into a mossland and a vital green lung for people in Worsley and Eccles South and the wider community in Salford.'

Dave Crawshaw also urged a halt to further extraction at Chat Moss. 'Peat extraction destroys an immensely valuable, rare habitat ... and leads to the destruction of a unique archive of our environmental and cultural past,' he said. 'Lowland raised bogs provide breathing space and a sense of place for millions of people. Also, due to the acidic, waterlogged conditions, lowland raised bogs preserve a broad range of archaeological monuments and artefacts to an extent that is rarely encountered elsewhere.' He noted that 'Lindow Man', the leathery remains of a 2,000-year-old human sacrifice, was discovered in 1984 close to Chat Moss.

'Lowland Raised Bogs are a very rare habitat,' Crawshaw added. 'In Greater Manchester 92 per cent, or 3,793 hectares, of Lowland Raised Bog habitat has already been destroyed. Of the remaining eight per cent, over half is made up by peat extraction sites.'

Chris Findley, Salford City Council's Assistant Director Planning and Transport Futures, said the council will endeavour to balance the 'legitimate demand for an economically valuable mineral resource against the long term environmental impact that it could have.'

'Over recent years the importance of the latter has become much more significant as our knowledge of the impacts of peat extraction on climate change and the environment has advanced, and as peat free products have been developed for use by the horticultural industry,' he said.

William Sinclair Horticulture's Mark Way pointed out that peat extraction is a viable business providing employment in a moribund economy. 'Thirty-three people are employed directly and indirectly in peat extraction at Chat Moss,' he said. 'Extension of the planning permission would safeguard these jobs.'

Dave Crawshaw suggested that peat extraction could be replaced by more sustainable employment. 'Yes, there would be a few jobs lost on the site itself, but these jobs would be replaced by the expansion of the peat alternatives market, which is much more sustainable in the long term than peat extraction. In addition several jobs have already been created connected to site restoration and management.'

Barbara Keeley also stressed the other possible uses of Chat Moss. 'If the land is restored it could be used for social and leisure uses again,' she said. 'I understand there are very few jobs involved in actual extraction—I only saw one or two employees there—and alternative jobs could be provided by this firm if it developed alternative horticultural products.'

Mark Way replied that the UK demand for peat is likely to be met by imports instead, likely causing a net loss of jobs. 'If planning permission is revoked for Chat Moss we will be forced to import peat from Ireland,' he said.

Forgotten timebomb

Imports raise another issue—the carbon emissions associated with peat, called by the National Trust the 'forgotten climate change timebomb.'

'As well as being important for their biodiversity lowland raised bogs are major stores of carbon, and in good condition, can actively remove carbon dioxide from the atmosphere,' said Dave Crawshaw. 'However, when drained, they become vigorous sources of carbon dioxide.'

Bogs in the sparsely populated regions of the UK, such as Scotland, could still be acting as carbon dioxide sinks, locking away carbon dioxide emissions. But those closer to industrial heartlands like Manchester may already be saturated. Some claim that restoring peat bogs like Chat Moss (and thus reinstating their carbon dioxide sequestering potential) could soon become instrumental in efforts to curb Britain's carbon dioxide emissions.

The National Trust has stated that that peat stores an estimated twice as much carbon as forests worldwide. The UK alone emits around 420,000 tonnes of carbon dioxide every year from peat extraction, according to DEFRA. The National Trust Carbon Flux from Peak District Moorlands 'Moors for the Future' Research Note No. 12 estimates that the peat dug up in Britain releases the annual equivalent of 100,000 cars on the road.

William Sinclair Horticulture's Mark Way was dubious about some of these claims. 'With regard to the carbon dioxide argument, the science is extremely complicated, and we are unqualified to judge whether peat is a significant contributor to the problem. If it is, then the Government might decide to ban its use in horticulture and probably restrict drainage on wetland, [although] historically, much of the wetland drainage was done with the aid of Government grants.'

Simply banning UK peat extraction may not actually result in a reduction in emissions, he warned. 'If the object of the exercise was to reduce the carbon footprint, the policy in practice has had the opposite effect.'

'Restriction of planning permissions on peat extraction has resulted in a situation where in the last 20 years approximately the same amount of peat, 3 million cubic metres, has been sold each year in the market. ... Twenty years ago, 70 percent of [peat] originated in the UK. Now only 40 per cent of it is UK sourced, with the majority coming from Eire, which requires greater haulage.'

In their application, the company claim that 'the carbon footprint associated with sourcing peat from outside the UK would be greater than if extracting peat locally at Chat Moss.'

Derek Antrobus, the Lead Member for Planning at Salford City Council, declined to discuss the Chat Moss application. However, he explained that Salford City Council is party to the Minerals Development Plan, a document being jointly drawn up by the 10 authorities in Greater Manchester. 'My deputy Councillor Mashiter and I have argued strongly on the joint committee for a tightening of the policy on peat extraction because we feel that Planning Policy Statement 1 (Supplement on Climate Change) makes it clear that climate change mitigation and adaptation is at the heart of the planning system,' he said. 'As such, we believe that peat, because of its importance as a carbon sink, should only be worked when it is essential to restore peat bogland.'

MP Barbara Keeley was more specific. 'Peat bogs like Chat Moss have an important role to play in combating climate change because they affect carbon dioxide levels,' she said.

'Commercial peat extraction cannot be carried out unless the peat bogs are drained, thus releasing the carbon dioxide back into the atmosphere. Allowing the continued extraction of peat on this site is causing thousands of years worth of stored carbon to be released, thus worsening the affects of climate change. Allowing peat extraction to continue on this site is, therefore, adding to climate change.'

Salford City Council's Chris Findley maintained that ecological and environmental factors 'will play a very important part in arriving at a balanced judgement, both in relation to protection of an existing ecological asset, potential for long term restoration to a national priority habitat and the impact on an existing carbon sink.'

'The council's role here is as local planning authority considering a planning application and any potential breach of planning control,' he said. 'At a broader level, ... we are seeking to protect the mosslands from exploitation for peat because of climate change and environmental impacts. But we have to consider individual planning applications on their planning merits, and in a lawful way.'

Jumping the gun?

While the squabble over extraction drags on, William Sinclair has already begun preparations for extraction without permission, according to the Lancashire Wildlife Trust. The Trust alleges that the company restarted peat extraction at Chat Moss on Good Friday, and a visit by the *Ecologist* to the site over Easter appeared to confirm the allegations, with heavy machinery kicking up a fine mist of black soil.

Mark Way of William Sinclair Horticulture's Corporate Communication did not respond to questions about the alleged unauthorised activity at Chat Moss. However, the company has told the BBC it was forced to resume work during favourable weather to protect its investment.

The [Lancashire Wildlife Trust's Chief Executive Anne Selby has publicly lambasted William Sinclair's 'illegal activity'](#) and blatant disregard for due process shown.'

Perhaps in response to the Lancashire Wildlife Trust's appeal for intervention, Salford City Council issued a 28 day temporary Stop Notice on May 9, with instructions liberally posted at the extraction site to stop all further operations.

But sources claimed that Sinclair's was ignoring the notices as of the morning of May 11. 'Not only is peat milling continuing, but the stockpiled peat that has accumulated on the site is being removed as rapidly as possible,' said Dave Crawshaw. 'I have made further representations to Salford City Council and asked them to pursue this breach of the Stop Notice.'

As Salford City Council's Assistant Director of Planning and Transport Futures Chris Findley told the *Ecologist*, '[A] situation which on the face of it may seem simple may have complexities associated with it.' Still, considering that Salford City Council 'has absolutely no financial interest in the site, or in the extraction of peat' and that 'there is no income to the council from Chat Moss', many ask why such a controversial planning request should be granted.

Cheap and best?

Indeed, with critics like Anne Selby clamouring that peat 'has had its day,' why don't companies use a less controversial alternative? Put simply, Mark Way said, 'peat is both the best and the cheapest growing medium.' William Sinclair believes only a ban or a tax can substantially reduce horticultural peat use, he added. '[L]ittle investment has, or will be made into alternatives until it is obvious that a demand exists.'

Those claims were disputed by Dave Crawshaw. 'There are now numerous peat free composts available,' he said. 'Sinclairs themselves produce an award winning brand called New Horizon. The top three performing composts in the 2010 Garden Which Report were all peat free, and the worst performing was 100 percent peat. The companies, like Sinclairs, should be given credit for the research and development that has made this possible. No-one should now be claiming that peat free composts do not perform well. They actually perform better than peat.'

Peat divides the horticultural community like nothing else. Some gardeners, like Alan Titchmarsh and Bob Flowerdew, have recently claimed that there is no substitute for peat, while others, like Monty Don and Charlie Dimmock, have thrown their weight behind a campaign to eliminate peat.

Mark Way explained that, while many peat alternatives perform worse, some are better. 'For example, nearly a year ago, William Sinclair announced it had developed a unique, ground breaking growing media that performs as well as peat and has the potential to enable the horticultural industry to meet the Government's 2020 peat free target. The new product, called SuperFyba, has similar qualities to peat, namely: good water retention qualities, a low nutrient level, it is nitrogen stable, lightweight, it even looks like peat and is made from entirely renewable sources.'

However, he stressed that commercial considerations, such as an insufficient volumes of alternatives, mean peat the best available material. 'This is only likely to change if the Government introduces a legislative framework that encourages the use of alternatives,' he said. 'William Sinclair has spent several millions of pounds developing a new technology that resolves all the problems of using green compost for peat replacement ... [using] civic amenity green waste that currently is very difficult to use and frequently becomes a problem material that requires disposal. ... However we would need to build about 40 of these facilities to replace all the peat used in the UK at a cost of around £50 million, and the end product would be slightly more expensive than peat.'

Despite the well-publicised ecological impacts of peat-based compost, it remains popular—over 40 per cent of compost used in the UK contains peat. Perhaps, as DEFRA has stated, 'external costs of peat are not reflected in the costs of extraction or the market price, and Government intervention is needed to facilitate the shift to peat-free alternatives.'

Mark Way said that an integrated approach would be most sensible. 'If Government believe the environmental argument is valid, it has a duty to create a framework that supports investment needed to replace peat.'

Consumers have been reluctant to turn to alternatives, and companies slow to label compost containing peat; the industry norm is to state when a product contains no peat, rather than the

other way round. There is as yet no reliable test for peat content, although a test on carbon 14 content shows promise.

When consumers don't know or don't care, and some producers are already expecting a ban or tax, the onus seems on proactive Government oversight.

'We need to go further if we are to protect our natural environment and reduce greenhouse gas emissions,' Natural Environment Minister Richard Benyon has said of peat extraction. Environmentalists are hoping action, rather than words, can save the few remaining peat bogs and safeguard their rich ecosystems of unique flora and fauna for the future.

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