

On the Road to Damascus

...clearing conifers along the way!

Big bucks were needed to bribe Third World countries not to clear rainforest and kick-start the Copenhagen conference. Prime Minister Gordon Brown was right up front with billions of UK taxpayers' pounds in his pocket, while back home conifers were still being felled for heathland and with FC blessing.

So what is so special about a largely contrived habitat to have brought about such a 'Pauline Conversion' in men and women trained in trees and caused hundreds of foresters to fall quietly into line? What is heathland and are conifers now earmarked for clearance on land that was natural heathland? The Forestry Commission claims it is all in the cause of 'heathland restoration' but were these areas immediately previously heathland if ever heathland at all? How and when did 'heathland' originate and is it all the same? Last but not least are they worth the destruction of our hard fought for home-grown timber industry? These are questions needing answers.

Heathland

Lots of ancient UK settlements carry 'heath' in the name but use in contemporary environmental and ecological contexts is recent, probably because heathland, now categorised according to ground cover composition, has become an empire in itself. Leading post-war

writers including L Dudley Stamp (*Man & the Land, 1955*) HL Edlin (*Trees, Woods and Man, 1956*) and Oliver Rackham (*Trees & Woodland in the British Landscape, 1976*) mention 'heaths' but offer no discussion in either historical, environmental or ecological contexts.

Heath was originally a generic term applied to any piece of land from which forest was cleared but not subsequently used to plant crops. Typical was Balsall Heath in Birmingham founded on clay which is not natural heathland territory. Archives suggest this was forest cleared by medieval charcoal burners supplying fuel for Birmingham's iron foundries. The broad brush definition of heathland is a 'tract of level uncultivated wasteland with sandy soil and scrubby vegetation'.

In contemporary UK jargon heathland (heath) is a habitat occupying infertile acidic soils and characterised by open, low-growing woody vegetation dominated by heathers.

Heathland is broadly categorised as 'upland heath' and 'lowland heath' and further as 'wet' or 'dry'. Conifer forests most under threat are in southern England and scheduled for dry lowland heath. The UK Biodiversity Action Plan defines lowland heath as below 300m. The University of the West of Scotland says it is land where wildwood forest once grew which means it is



Slash and burn in the name of biodiversity: smoke on the horizon tells its own story as trees are burnt in a heathland restoration project.

not true natural heathland. The only exception is coastal heathland where exposure levels restricted wildwood development.

Oliver Rackham says destruction of wildwood for agriculture (livestock grazing/browsing and crops) started during the Mesolithic Period (7000-4000 BC) and continued in earnest during the Neolithic Age when wildwoods all but disappeared from the East Anglian Breckland, many chalklands, the Somerset Levels and coastal areas of the Lake District. Clearance proceeded through the Bronze Age (2400-750 BC) extending into the uplands, but the greatest activity occurred during the early Iron Age. Rackham guess-timates that half of England ceased to be wildwood by 500 BC and the 1086 survey recorded in the Domesday Book shows England as poorly wooded with under half of settlements documenting woodland.

The creation of lowland heath would have occurred throughout this 6000- 7000-year period and sooner rather than later, because in agricultural evolutionary development livestock herding usually precedes arable farming. Lowland heath in England has essentially evolved from forest cleared to provide manageable land for livestock and therefore was created and maintained by human activity.

With wildwood gone, soil becomes prone to leaching and low fertility. The effect of the cool wet UK climate on increasingly impoverished soil inhibits the decomposition of organic matter, causing accumulation of acid humus and even more leaching pressure on calcium. The net result is low fertility acid-reaction soils supporting typical calcifuge (lime-hating) plant communities dominated by heathers.

The University of the West of

Scotland (*British Habitats: Lowland Heaths – Dr AJ Silverside*) says heathland may replace forest as a transitional stage of a secondary succession or as a stable plagioclimax (diverted climax), especially if grazing or fire is used as a management tool to maintain the *status quo*. Grazing or fire is usually required to prevent invasion by scrub, particularly with pioneer species like *Betula* (birch) and *Pinus sylvestris* (Scots pine), and eventual reversion to woodland.

So are all the conifer covered areas in question of immediate previous heathland status? Probably not, because neglected agricultural land tumbles down quickly into scrub and subsequent secondary woodland, which means many areas will almost certainly have been through multiple cycles of succession from forest to agricultural land via heathland and back again.

Thetford Forest in Suffolk and Norfolk, the largest lowland man-made conifer forest in England, was planted on low-grade farmland as well as heathland.

Another clue to current thinking is the nature of contemporary research. Scientists at Bournemouth University studied the factors required to convert improved pasture to heather-dominated heathland, using soil amendment products like sulphur to lower pH (increase acidity) and by stripping topsoil.

Are bird lovers to blame?

The Observer newspaper ran an article on 13 September 2009 entitled 'RSPB accused of damaging British environment to save birds' which at first sight seemed strange for this publication. Environment Correspondent David Adam claimed the charity was damaging the environment by felling 60 hectares of conifer woodland at its Farnham



The search for cattle able to survive on intentionally impoverished pasture has meant a long journey south for this Belted Galloway.

Heath Reserve in Surrey to restore traditional open heaths and was pressing government to do the same with its own huge area of conifer forest run by FC. An unlikely alliance of the Green Party and ConFor told *The Observer* how it compromised the UK's fight against global warming as well as depleting timber reserves.

The article portrayed a picture of heavy machinery deep in the forest felling swathes of trees to leave bare scrubland and a handful of stumps as forlorn memorials, although this was affluent Surrey and not the Amazon Basin. Those responsible are not illegal loggers, said the article, but one of Britain's largest and most influential conservation groups, and if it has its way a forest near you could be next for the chop.

The RSPB was unrepentant, with its Project Manager, Mike Coates, pouncing on Scots pine, Corsican pine, Japanese larch. "There are clues in the names," said Mr Coates adding how, "These trees are not native to southern England," but then neither is the rabbit. Norfolk Wildlife Trust says the introduction of myxomatosis in the 1950s was responsible for the loss of Norfolk's heathland. The virus virtually wiped out the rabbit population and the subsequent loss in grazing pressure allowed a lot of lowland heath to revert to scrub and woodland.

Rabbits are clearly helping to maintain England's 'ancient natural' heathland and no one apparently sees anything wrong with that, but even an avian anorak should know that rabbits were introduced from mainland Europe by the Normans in the 11th century. And by the way, *Pinus sylvestris* (Scots pine) was growing as a native tree in southern England long before it reached Scotland.

Tip of the iceberg

What's happening now is just the tip of an iceberg because government is currently deciding behind closed doors whether to carry out the same conversion (conifers into lowland heath) on tens of thousands of hectares of its own land owned and managed by the FC. The RSPB is pushing hard for it to do so, and wanting government to double the current area of lowland heath to over 100,000 hectares by clearing out conifers.

Talking of icebergs and global warming, not everybody thinks it is a good idea. At a time when carbon emissions require rapid reduction through carbon sequestration, cut-

ting down fast-growing conifers for sedentary heather-based heathland sounds daft. The government's own figures suggest large-scale clearance of UK conifer plantations and their replacement by heathland could increase Britain's carbon emissions by up to 0.1%.

Stuart Goodall, chief executive of ConFor, told *The Observer* it was 'absolutely crazy' for government to push the global importance of planting trees to lock up carbon while simultaneously considering felling UK forests for heathland, thereby releasing carbon and losing jobs in the process. "It just doesn't add up," he said. "The forestry sector is small and we can struggle to get our voice heard. We are an easy target for the RSPB to pick on."

And there is the crux of the matter – with government continually saying one thing and doing another. Over in Copenhagen it pleads with assorted dictators and despots to leave rainforests alone offering them billions in 'bribes' to do so, while providing UK foresters with a few million quid to replant, while planning the wholesale destruction of UK timber reserves. Stuart Goodall told *The Observer* how British companies have come to rely on the regular supply of softwood from conifer forests for construction, furniture and wood products such as fencing and pallets.

Biodiversity conundrum

The Observer implied the driving force was nostalgia for the English landscape of Thomas Hardy, but it is simply about biodiversity or rather one particular view of it. Coates told David Adam: "Woodland is very common compared with heathland. But recreating heathland is so much better for wildlife than a conifer plantation. Lots of the birds that live in the conifer forests are common and can survive elsewhere. Heathland stuff needs heathland, and much of it is very rare," he said, mentioning the nightjar and woodlark, two heathland avian icons trotted out on each and every occasion.

Goodall retorted, "It is a fallacy to think that certain types of trees have no biodiversity benefit. It's just that conservation bodies don't like them. Coates was truly unrepentant this time telling David Adam how, "It should be the right tree in the right place. A field of barley is a field of grass, but it's not a meadow; it's a crop. In the same way, these areas of land are dominated by trees, but they are not woods, they are crops."

I have no wish to pick on Coates but publicly uttered comments like these really deserve 'the bird'. A field of barley is no more a field of grass than a field of tomatoes is a field of tobacco (both belong to the plant family – *Solanaceae*). Cropped land and biodiversity are not mutually exclusive. In much of the hot humid tropics rainforest has long gone and is now replaced by coffee and cocoa estates so we can enjoy an inexpensive cup of Nescafé and a milk flake on heathland picnics. Coffee and cocoa estates are intensively planted areas of tree crops but they still support rich biodiversity and are the next best thing to rainforest – the equatorial version of our long lost wildwood.

The RSPB view is blinkered by the parochial heathland mindset and does not tell readers the whole story. Avian authorities admit the ongoing dramatic falls in population of some bird species are due to a number of complex factors, some still unexplained, and for summer migrants (like the nightjar) often out of our control in Sub-Saharan Africa. There is more forest cover than heathland and it supports more biodiversity because it is a dynamic ecosystem at different stages of development, unlike heathland which is 'diverted climax' vegetation. Heathlands are mostly plant species-poor and dominated by one or very few, says the University of the West of Scotland.

Some 'heathland birds' have already adapted to the forest environment and this includes nightjars and woodlarks recorded in large numbers in young open stands in Thetford Forest. Ploughing up, public access, recreation and building development have all impacted on ancient heathland and contributed to a reduction in nightjar numbers, but at least reforestation provides alternative opportunities for these birds. If the future of the nightjar depended solely on its heathland strongholds then it would be in real trouble, but fortunately they find cleared blocks of forestry plantation to their liking says Rex Hancy of *Birds of Britain*. The answer clearly lies in forestation with more emphasis on different stages of tree stand development within the same area.

No plain sailing

Maintaining lowland heath is no plain sailing, with Norfolk Wildlife Trust describing some of the challenges faced by its managers. Sites scrubbed over or infested by bracken need expensive restorative work, sometimes involving the stripping of humus-rich topsoils. Regular cut-

ting of swards to stop scrub is expensive and grazing is the more sustainable option. But stock fencing is expensive and livestock that is well adapted and suitable for grazing land yielding few nutrients is not easy to find. Integration of grazing with public access brings another set of challenges.

The answer is improved management of existing heathlands. Natural England says traditional heathland management has nearly disappeared over the last decades. Since heathland is not (natural) climax vegetation it can be invaded by scrub, bracken and other less ecologically valued vegetation, if not intensively managed. As such heathland was considered as a 'waste and barren land' and was systematically destroyed and fragmented by reforestation and development, it claims.

If reforestation is viewed positively it can be designed to accommodate erstwhile heathland animals and therefore obtain the best of all worlds – less carbon emissions, improved timber supply and more wildlife. All evidence suggests further conversion of conifer forests into heathland will merely provide bracken, now occupying 6-7% of our land area and spreading at 2-3% per annum, with even more opportunities. Bracken is already out of control and any more is the last thing we need. Commercial conifer plantations will exclude bracken once the canopy has closed.

Anyone who thinks wholesale conversion of forested areas to heathland is a politically sustainable option in the longer term is naïve. In twenty years' time, with the UK splitting at the seams, millions without homes and a huge energy deficit, government will have no compunction, indeed no choice, about turning over every available hectare of land to food, energy crops and timber.

The government is poised to bulldoze Sipson, a Middlesex village of Anglo-Saxon origin with 700 homes, 1600 people, a school, pub, cemetery and Saxon church, and all for a third runway at London Heathrow Airport, contrary to carbon logic and sending millions in West London and along the M4 corridor senseless with sleep deprivation and suffocated by gaseous pollution. Anyone who thinks future governments will let heathland wildlife stand in the way when forced into a 'Damascus Road Reversion' is 'whistling in the dark' just like a nightjar.

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