

Decline and fall

Arwyn Morgan finds that, whilst there is money for heathland restoration, little is available to arrest the demise of an iconic tree – the oak

To use a modern term, it seems that 'joined-up thinking' is at last being used for the benefit of all who have an interest in trees and forests. To this effect, the Royal Forestry Society, Forestry Commission and Forest Research have combined their efforts to produce a diverse, interesting and highly educational meet; it seems that this was the first in a series of such events.

The event, which was ably organised by the Gloucester branch of the RFS, covered a variety of issues. Although the first part highlighted the Forestry Commission's ability to spend vast amounts of taxpayers' money with highly debatable results, the second part would best be described as a *tour de force* highlighting an issue not just of forestry interest, but rather of national importance.

Heathland restoration has been a contentious issue in the woodland sector for some time. Although Britain has a relatively low percentage of forest cover, the Forestry Commission has undertaken forest clearance to create new heathland, and not necessarily planted new forest to compensate for the loss of woodland cover. The heathland is to improve biodiversity and provide a habitat for creatures who rely on that type of habitat. But the reality is that considerable areas of common land are readily reverting to scrub and woodland, due to a lack of traditional management methods. Perhaps it would be better for sustainability to concentrate on

existing, deteriorating heaths rather than try and create new ones.

The first of the day's visits was to a heathland restoration project run by the Forestry Commission. The project is in an area called The Park. The Park is situated on a ridge between the River Severn and the River Wye on the fringe of the Forest of Dean. The soil isn't the most productive, comprising of a narrow ridge of dry brook sandstone with podzols. Historically it seems that heathland was limited in the locality. The area was purchased by the Commission in 1951, and although the larger open areas were of interest to the Nature Conservancy Council, no opposition was expressed to the Commission's plan to create a plantation on the site. Up to this time, like so many other open areas in the region, it was grazed by cattle and ponies. After successfully growing a crop of Corsican and Scots pine, in the early 1990s it was decided, in conjunction with the RSPB and the Gloucester Wildlife Trust, to open up the area.

The trees were mostly cleared, with a few clumps left here and there to provide variety in the habitat. Fungal treatment was used on the pine stumps on the initial 27 hectares to help them rot more quickly. In this area the brash was left on site and sheep and cattle were brought in. Looking at the site, I have to say that it looked like a clearfell which was reverting fast to scrub, with very limited grass. Eventually the Commission, at



Dr Sandra Denman addresses the gathering.

quite some cost, bought in Exmoor ponies. Although originally numbering 10, they soon became 11, as one of the mares was pregnant, but no more births are due as the mares are only running with geldings. Much of the first enclosure has gone past what the horses can handle and will need some mechanical clearance on a regular basis. The top enclosure shows more promise, but there the brash was cleared, allowing the livestock greater access to the site.

These sites have needed high financial inputs, and will continue to swallow considerable sums of money. Unfortunately the Commission has shown a complete lack of knowledge of livestock production, though of course livestock production is not the end goal, rather, habitat maintenance is. But for the project managers to believe that livestock of whatever species can graze through brash and live and browse off of such poor quality terrain shows such naïveté bordering on incompetence. It is little wonder that neighbours have been feeding the animals on an auxiliary basis. Mention was made of using rare breeds of livestock on the site, yet realistically, considering the quality of browse, it is highly unlikely that they would prosper there.

The comments of the Commission staff emphasised that in the past the farmer and forester were closely related with them often being one and same, but these skills have been lost. The reality is very different. There are families who have managed low-cost pasture and forest management systems for many generations. What's happening here reminds me of certain other large government organisations that constantly use fresh-faced, highly quali-

fied college graduates as employees or consultants who restrict land users in managing their land in the way that many generations have done. The reason given is the need to save the habitat, but several years down the line, that very habitat has been destroyed due to the highly qualified consultants' lack of real practical knowledge.

An interesting question raised by the new RFS president Anthony Bosanquet was how society could be persuaded to pay for loss making ventures? The answer was that the forester's job was to implement what Parliament told them. If they were told to plant conifers they would do so. Often they were driven by political forces, not economical ones. All this makes one wonder, if the politics change, as they always do, what will happen to the entire heathland habitat? Perhaps rather than spend vast amounts on such projects, it would be better to invest in low input systems that can ensure the long-term survival of these biodiverse habitats.

The afternoon session began at the Forestry Commission's Dean Management Training Centre. The lecture room was overflowing with interested parties from all over the UK.

The presentation was on 'Oak Decline'. That day, 21 October, was Trafalgar Day. The Battle of Trafalgar could not have been won without the oak tree, many of which were grown in the Forest of Dean. The oak is the iconic tree of the British Isles – whether it's England, Scotland or Wales, it's probably the one unifying factor. But the oaks of Britain are under attack.

This subject in its current form was recently printed as an article entitled: *Oak Decline, new definitions*



Moribund: an infected oak with all the small, feeder roots already dead.

and new episodes in Britain, in the RFS's *Quarterly Journal of Forestry* of October 2009.*

Opening the presentation, Dr John Jackson explained how the RFS, Forest Research (FR) and the Forestry Commission (FC) were working together. Likewise the Research Liaison Officer for England, Dr Suzanne Martin, was present to raise awareness of the research services and to see what needs might arise.

The opening comments emphasised the importance of native oak and effects of its possible demise, from political, economical, visual and environmental standpoints. But alas the problem of finance reared its ugly head, and it seems that there is only very limited funding to research the subject, although FR and FC are working hard on raising funds. Perhaps if pressure were exerted by Joe Public, more would be forthcoming. The main presentation was made by Dr Sandra Denman and after some discussion the group transferred to Speculation Cannop picnic area to see examples of oak decline.

There are many factors associated with declines. They are therefore referred to as syndromes, since factors vary from site to site. They can also vary with season and a host of biological factors. So far it has been difficult to blame any single cause and although there are many views, little progress has been made.

Oak decline can be distinguished into two different types, those with a fast effect called Acute Oak Decline (AOD), and those with a slow effect called Chronic Oak Decline (COD). These declines are not to be confused with Sudden Oak Death (SOD), the disease that has killed millions of trees in America.

The first recorded episode of AOD in Britain occurred in the 1920s, characterised by repeated defoliation of spring foliage followed by mildew attack on the summer flush. This attack is on the leaves of the trees and is still considered a major problem in parts of France, but in the UK there are only limited records. That is why there is a desperate need to fund a database to collate reports and get an idea of the scale of the problem.

But now there is a new episode of Acute Oak Decline in Britain which

* A PDF or hard copy of the article by Sandra Denman and Joan Webber is available from the RFS either at rfshq@rfs.org.uk or 102 High Street, Tring, Herts, HP23 4AF; tel 01442 822028. There is no charge.



(Above) Typical canopy symptoms of Chronic Oak Decline. (Right) Typical symptoms of Acute Oak Decline on the stem of an oak.



attacks stems of oak. It is probably caused by a bacterial pathogen. Both *Q. robur* and *Q. petraea* are susceptible. The inner bark is broken down at intervals along the stem, fluid oozes from small bark splits and runs down the stem periodically. Mortality is variable and there is a need to find out whether the bacterium kills the tree or whether other agents are responsible – eg honey fungus or the Agrilus beetle. Although AOD has been reported on 55 sites, it is suspected that this is a major underestimate.

There is a desperate need to get data, but unfortunately due to the lack of funding, FR is not yet in a position to make detailed studies on all reported sites. Nevertheless individuals can report occurrences of AOD, but they first need to check out Forest Research's website to be sure of the symptoms (www.forestrysearch.gov.uk/oakdecline) and if it adds up, to contact their regional FR advisory centre.

Chronic Oak Decline follows a much slower process, and some trees can even recover. A thinning canopy is often the first indication of COD, but also there tends to be a relationship with various root rots, and, as the decay sets in, other issues arise.

Sudden Oak Death, which has been so devastating in the United States, is caused by a *Phytophthora*, which follows a complicated life cycle. It grows and produces spores (inoculum) on shoots and leaf tips of foliage hosts eg rhododendron, whence it transfers to the stems of trees. Moral of the story is, get rid of that rhododendron, so destroying much of the factory which produces the disease.

There are many questions that

need answering, and now is the time to do the research – not after a serious epidemic occurs. Perhaps the government and the Forestry Commission would be better to invest in such a long-term project rather than the inefficient, expensive, politically correct projects such as heathland restoration. If Britain's iconic tree were to be devastated, the political fallout would be far

greater than for the failure of other minor projects which come and go with fashion, and Britain would be poorer for it.

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