Quantock Hills
Area of Outstanding Natural Beauty

MANAGING

Beech Hedge Banks

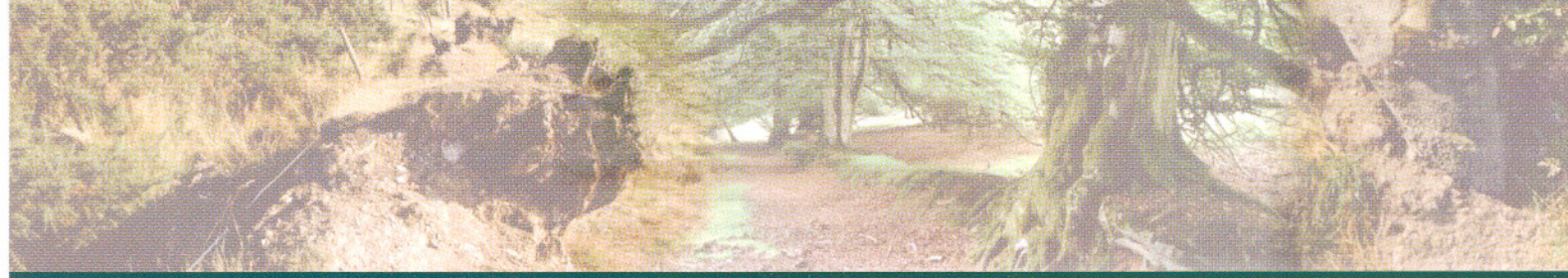
IN THE QUANTOCK LANDSCAPE

The Quantock Hills AONB Service are pleased to present the following technical document outlining the proposals for the conservation and restoration of the Beech Hedge Banks on the Quantock Hills produced by Dr C. J. Smith, a local ecologist, November 2002

These great hedgerows and tree belts are classic features in the landscape of the Quantock Hills. Consisting exclusively of beech, most were planted during the nineteenth century to consolidate old field boundaries or to form these anew, and all were typically established on raised earth banks. Some may date from even earlier times, as where individual veteran trees mark more ancient parish or other boundaries. Here the banks may also be stone-faced, at least along one side.

Beech hedge banks are not exclusive to the Quantocks. They occur elsewhere in the Blackdown and Brendon Hills and on Exmoor. However in these latter locations it was always the custom to lay or coppice the beeches at intervals, whereas in the Quantocks the rows of trees seem to have been consistently left to grow to maturity, so that here they are seen at their most impressive and substantial.

The great embanked beech hedgerows and tree belts are classic features in the landscape of the Quantock Hills. Most were planted as field enclosures during the nineteenth century, though some are older and mark more ancient boundaries, where the banks may also be stone-faced.



DETERIORATION OF BEECH HEDGE BANKS

2 As a forest tree, beech is not among the longest-lived of our native species. Individuals begin to succumb to the combined effects of many decades of exposure to sun, wind and rain - and at the highest altitudes snow and ice too. Roots become exposed as the banks erode or are worn away by farm stock and deer. Pathogenic fungi and the depredations of the grey squirrel add to these physical factors, as, sadly does the tendency to affix wire fences directly to the boles and roots. Trees begin to shed limbs or even to blow over, when they may take part of the bank with them, so hastening still further the demise of the boundary as a whole.

Landowners and countryside managers face a dilemma. Should they accept these features as redundant elements of a passing historic phase and allow them to lapse, at least as functional boundaries? Or should they take steps to reverse the decline and to restore the hedge banks, for all that this amounts to a substantial practical undertaking? One response is that while some boundaries may indeed be beyond the pale, others merit at least partial if not wholesale restoration, and this is the approach recommended here.

PARTIAL RESTORATION

3 Where a beech hedge is in generally good shape, it may still be worth undertaking a measure of tree surgery, for example where there are overhanging or dangerous limbs, or where an indivudual tree looks sick. In the latter case pollarding may be in order - a traditional practice in which the upper branches are removed and new growth encouraged to sprout from the bole some 3-4 metres above ground. With beech, the retention of at least one of the main limbs for an additional year or two can increase the chances of a new crop of shoots emerging and surviving. Earlier cycles of pollarding can be detected from the conformation of an old tree.

Whether just "limbing up" or pollarding, this is also an opportunity for restoring an ueven or eroded bank: more on this eslewhere in this leaflet.

LAYING

4 Beech responds well to laying when it is young though less predictably when it is older. It is routinely laid in Exmoor and elsewhere, but this has never been common practice in the Quantocks, although occasionally the horizontal orientation of old butts (or "steepers") betrays the presence of a rare laid section.

Success in laying older stems depends on the extent to which new shoots can be encouraged to break out from the laid poles. Long lengths of bare laid trunk are not much use functionally and can look awful, yet the rapid regeneration of new growth can soon obscure these imperfections.

COPPICING

5 Coppicing can be undertaken with any size of stem, though it is the only realistic option for tackling thicker trunks. The technique differs from felling in that a higher (and ideally sloping) stump has to be left, from around the perimeter of which new buds can break through. As with laying, light conditions have to be sufficiently open to permit effective regrowth.

Here again we have to contend with the huge variation in beech from individual to individual in its response to cutting. As with pollarding, it helps to leave a branch or two intact to lessen the physiological burden of complete decapitation. Singling multi- stemmed trees can serve the same purpose.

At best, regeneration may follow quickly and prolifically, even from very large and initially unpromising stumps. Moreover, adjoining trees may develop new shoots from the base of their trunks, presumably as a response to the changing light regime.

RETAINING INDIVIDUAL TREES OR STEMS

6 Whether laying or coppicing a length of hedge (or indeed doing both), leaving the odd tree intact can reduce both the visual and ecological impact of the operation. Singling multi-stemmed trees can have the same effect, and can also help support the regeneration of shoots from the coppiced stems of the same stool.

Trees to be left may be selected on the grounds that they are important veterans or approaching this stage (and are safe to leave as such), but equally the opportunity is provided for retaining a continuity of trees of intermediate age.

The number of trees left behind should not be such as to overshadow and so jeopardise the regeneration of the cut stems, while at the same time too regular a spacing should be avoided so as not to create an unnatural "lollipop" effect. Where a felling licence is required (see later), this retention of hedgerow trees is normally one of the conditions of granting the licence.

RESTORING BANKS

7 The earth banks form an integral part of the beech hedgerows and provide not only the main rooting medium for the trees but consolidate the function of the whole entity as a stock-proof barrier. It is thus just as important to reinstate eroded, damaged or undermined sections of bank as it is to rehabilitate the trees themselves. Properly restored banks also make it easier to replant any gaps, and enhance the likelihood that the transplants will take hold (see below).

Earthing up involves particular skills not only in "finding" sufficient soil and turf for the purpose and working this material in amongst the network of exposed roots, but also in re-shaping and consolidating the reinstated banks in such a way that, while firm and stable, they provide a favourable rooting medium for both transplants and any renewed grass cover.

Where stone facing is involved, it is normally too costly to contemplate reinstating entire sections, but token lengths can be restored, especially at gateways.

PLANTING UP GAPS

8 Whether or not the mature poles and stumps of the laid or coppiced beeches sprout as hoped for, the opportunity should also be taken to plant up ("beat up") the intervening gaps with new beech plants. Bare-rooted nursery-grown transplants of 60-90mm height, planted in a double staggered row at a spacing of 4-5 per metre, are the normal choice, although the occasional standard may be considered where the aim is to introduce a future specimen tree, and more space allowed accordingly.

It is good to try and use stock of local provenance (naturally regenerating beech may be present nearby), or at least to buy from local nurseries where these can meet the needs at reasonable cost. Planting should be done in the dormant season, although contractors differ in their views on whether this is best done immediately the bank is ready, or after it has had the chance to settle.

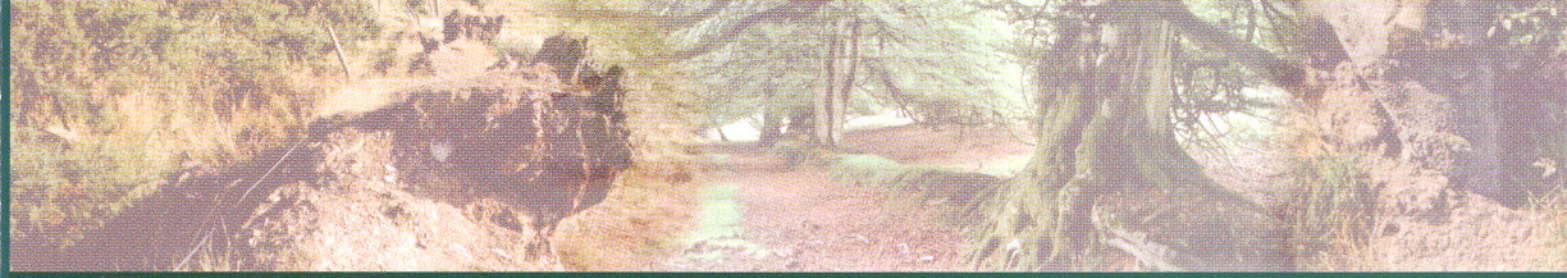
Protection of individual transplants may not be regarded as crucial if the new banks have been fenced adequately, though if this is deemed advisable (for example as shelter in exposed situations), bear in mind that beech fares better in meshed or perforated guards that can "breathe".

FENCING

9 The prime purpose of fencing off a newly restored hedge bank is to protect both the regenerating shoots and young transplants from being grazed off (and bark gnawed) by farm stock or wild animals. Standard cattle or sheep fencing is the rule, but if rabbits are a problem they need to be strictly controlled since in addition to their grazing habits they will recolonise and undermine the new bank. Red deer are very much a part of the Quantock scene, but deer-fencing is prohibitively costly as well as visually intrusive, so stock fencing has to suffice in this regard also. One suggestion has been to leave fenced-out gaps in banks to facilitate access by deer and to encourage them to move on through.

AFTER CARE AND INSPECTION

10 The main elements of after-care include checking the stability of the bank, especially after frost or prolonged rain; ensuring that fences are not breached or undermined; protecting the transplants from excess grass growth with carefully targeted herbicide; and being prepared to water the young plants if they run into spring or summer drought. Any failures should be noted and dead or missing plants replaced in the second autumn/winter.



LICENCES AND PUBLIC RELATIONS

11 Anyone contemplating restoring a beech hedge bank should be aware of the need to obtain a felling licence from the Forestry Commission if the amount of timber to be cut amounts to more than 5 cubic metres per 3 months (2 cubic metres if it is to be sold on). This is unlikely to be refused, but a case has to be made for the work and there are likely to be conditions imposed on the procedure to be followed, as already indicated.

It may be also that individual trees or even whole beech hedge banks have a Tree Preservation Order (TPO) on them. This can be established from the respective District Council. If there does prove to be a TPO in place, the Forestry Commission will liaise with the District authority as necessary if a felling licence is required, but if it isn't, applicants must do the negotiating for themselves direct with the District Council, or appoint an agent to do this for them.

On the matter of public relations, people seeing work of the rather dramatic nature involved here will understandably be worried about what's going on. It is good practice to erect explanatory notices, which can be worded to meet Health and Safety requirements too.

CONTRACTORS AND COSTS

12 Over the years, a number of contractors, mainly from Somerset and North Devon if not the Quantock area itself, and specialising in hedging, forestry, arboriculture, bank and wall reconstruction and fencing, have been applying their skills, both independently and collaboratively, to beech hedge bank restoration work of the kind described in the foregoing paragraphs. Through co-operative working between the AONB Service and Department for Environment, Food and Rural Affairs a special category for payment under Countryside Stewardship has been developed for looking after and restoring Quantock beech hedge banks.

We are fortunate in having these people in our midst, or willing to travel to our area, and trust that they will continue to be involved in rescuing a larger and larger extent of our historic Quantock beech hedges. The names of the main contacts and where to find them are available through the AONB Service as noted below. Anyone reading this who isn't on the list of contractors, and who thinks they should be, should get in touch with the AONB Office.

Regarding charges, until our combined experience grows, it is difficult to be precise over how much each stage will cost since boundaries vary in so many different ways. In time we aim to gather a consensus of estimates of costs for each phase of work, but in the meantime it is best to obtain estimates from individual contractors.

LOGISTICS AND GRANT-AID

13 Restoring beech hedge banks is a substantial operation and it is essential to plan your programme of work well in advance. Inevitably it can be a costly operation and this is where grant-aid can help.

Countryside Stewardship targets beech hedge banks in the Quantocks and help may be available over a ten-year period towards the capital costs of restoring agreed lengths, subject to the applicant obtaining any necessary felling licence(s) and TPO clearance. More information on Countryside Stewardship can be obtained from the scheme's team of Project Officers at DEFRA (see "contacts").

THE LEARNING CURVE

14 The special circumstances surrounding the history and current condition of the Quantock beech hedge banks mean that we are all very much on a learning curve regarding how best to restore and look after them. Yet, there is a great deal of expertise "out there", and part of this current exercise is to make sure that we tap it.

Having helped reawaken interest in hedgebank restoration, the AONB Service are keen to maintain the impetus and to keep people who are involved in the work in touch with each other. If you are interested in restoration or have any comments, information, or practical experience which you feel would be of help, please get in touch via the AONB Service.

FURTHER HELP: CONTACTS

Andy Harris, Quantock AONB Service Ranger is based at the
Quantock Office, Castle Street, Nether Stowey, Bridgwater, Somerset TA5 1BA
Tel. 01278 732845, e-mail quantockhills@somerset.gov.uk.

DEFRA's Taunton offices are at Riverside Chambers,
Castle Street, Taunton, Somerset TA4 1AP
Tel. 01823 285500.

Farming and Wildlife Advisory Group (FWAG),
Environment & Property Dept., County Hall, Taunton, Somerset TA1 4DY
Tel. 01823 355427, e-mail somerset@fwag.org.uk

The Forestry Commission are at Mamhead Castle,
Mamhead, Exeter, Devon EX6 8HD
Tel. 01626 890666.

The AONB Service is supported by

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