

Restoring ghyll woods



Peter Wakely/English Nature

Historically much of the British and Irish uplands, below 600 metres, were covered by broadleaved woodland. The woodland provided materials used within the traditional stone barns associated with upland farming, such as woven hazel flooring and wooden boskins used for partitioning. Hazel also provided the essential raw material for roof spars and sheep hurdles while ash and other hardwoods were used for making tool handles.

The extent and quality of woodland in the uplands has substantially declined over recent centuries as sheep numbers have increased, shepherding has declined and traditional woodland-based industries have waned. Today, remaining areas of native woodland and scrub are mostly confined to narrow, steep-sided valleys – locally known as “cloughs” or “ghylls” – places where pressure from sheep grazing is sufficiently low to allow trees to regenerate.

A typical ghyll
woodland, Yorkshire



ADVISORY NOTE

Restoring woodlands naturally

Restoring ghyll woods

What is ghyll woodland?

Ghyll woodland is the term given to native woodlands found on steep-sided valleys. They are found throughout Britain and Ireland, but predominantly in upland areas and in western Britain.

Upland ghyll woodland is of significant value for wildlife and is also important in a landscape and a historic context.



Peter Roworth/English Nature

Species common to upland ghyll woodlands:

Trees and shrubs:

- ✿ Downy Birch
- ✿ Silver Birch
- ✿ Ash
- ✿ Hazel
- ✿ Hawthorn
- ✿ Grey Willow
- ✿ Sallow
- ✿ Sessile Oak
- ✿ Rowan

Birds:

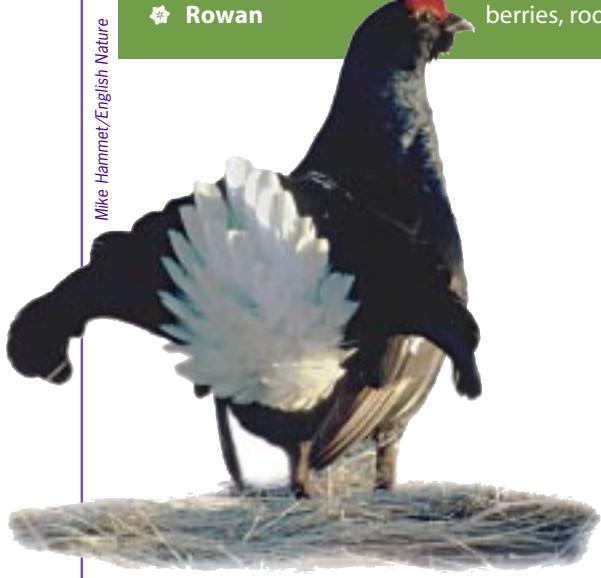
- ✿ **Pied Flycatcher:** nests in tree holes in mature woodland (summer visitor)
- ✿ **Wood Warbler:** nests on the ground (summer visitor)
- ✿ **Restart:** feeds on berries and nests in tree holes
- ✿ **Black Grouse:** feeds on berries, roosts in trees

Ground flora:

- ✿ Primrose
- ✿ Bluebell
- ✿ Wild Garlic (Ramsons)
- ✿ Ferns



Peter Creed



Mike Hammett/English Nature

Upland ghyll woodland is particularly important for Black Grouse – a rare and threatened bird throughout Europe – whose traditional habitat is the woodland edge and associated upland habitats such as rush pasture, heather moorland and upland wildflower meadows.

Approaches to woodland restoration

Excluding grazing

New fences around the areas to be restored are required to substantially reduce grazing pressure. By excluding grazing animals, new tree seedlings get a chance to survive.

- ✿ Access to the woodland should be maintained via a field gate; this access point will be essential if stock have to be retrieved from the woodland.
- ✿ Fencing should be periodically checked – and any deer or livestock driven out of the wood before carrying out repairs.

While providing some shelter for livestock, these steep-sided woodlands can also become a trap for sheep and cattle. Fencing to exclude grazing animals can therefore be beneficial to both the woodland and livestock.

When fencing an area of woodland to be restored, always:

- ✿ make the area as large as possible
- ✿ attempt to link other existing areas of woodland
- ✿ look at the area from a distance, to assess the landscape implications of any new fences – it may be some time before the trees grow sufficiently large to hide them.

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Future scenarios?

There are currently many uncertainties over farming in the uplands. It is possible that sheep numbers will decrease and, as a result, natural regeneration may occur in some areas, without the need for new fences.

Natural regeneration

Allowing the wood to regenerate naturally can take many years, which in the lifetime of a wood is negligible. Promoting natural regeneration is a low-cost, minimal management method, ensuring that the trees that grow originate from the existing trees in the woodland.

This method of woodland restoration should only be used where there is a reasonable diversity of shrubs and trees in, or close to, the site. Wherever possible, Sycamore should be removed from regeneration sites and adjacent land, otherwise this species will soon dominate.

Natural regeneration can be assisted by collecting tree seed from the local area, and sowing it on site.

Seeding and planting

Planting may be the best approach if there are no nearby sources of seed, or if only a limited range of species are present.

If planting is required:

Source planting stock with care

Plants originating from other countries or from lowland areas may suffer, especially if budburst is earlier than normal for upland areas. Ideally, plants should have been grown from seed originating from wild trees in the same, or an adjacent, upland Forestry Commission Local Seed Zone as the planting site. Seed collections could be organised from other woods in the area, and given to a local nursery to grow on. A local conservation volunteer group may be able to help.

Choose native species

Chosen species should naturally occur in the area; these will be suited to the soil and local climate, and beneficial to local wildlife. Some berry-bearing trees and shrubs should be among those planted to provide food for birds and small mammals.

Use small plants

1+1 transplants are cheaper and will have a higher survival rate than larger plants.

Reduce competitive ground vegetation

Secure polypropylene mulch mats (or squares of black plastic sheeting) around each plant or spray a metre centred on each plant with a suitable herbicide (this may need repeating several times during the first three years). Do not use herbicide if it is likely to cause collateral damage to sensitive ground flora plants.

If extensive dense stands of bracken are present, these should be reduced in vigour before planting, by using a specific herbicide (use only when other ferns are absent). Several applications in a single season may be needed.

Plant trees and shrubs in groups

Leaving unplanted glades will provide habitat diversity.

Protect young plants

Unless the woodland is rabbit-fenced use spiral guards or similar to protect from deer, rabbits and hares. In areas where large deer populations are present, culling will probably be necessary – there may be a local deer management group that can be approached for help.



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Other management tips

- ❖ **Standing or fallen dead wood** provides a valuable habitat for birds, insects and fungi; fallen trees and branches also provide essential shelter for seedlings, and release nutrients back into the soil, so should be retained.
- ❖ **Bird boxes** can provide additional nest sites and are particularly useful in woods where there are few old trees. The local RSPB Farm Conservation Adviser will be able to provide advice on which species to encourage and on suitable boxes .
- ❖ **It may be necessary to mark any fences** if Black Grouse are present in the area, as birds can be killed if they fly into them. Advice is available from the RSPB.
- ❖ **Supplementary feeding of livestock** near trees and woodland should be avoided as it causes poaching which damages the roots of established trees. It can also encourage undesirable weeds such as Creeping Thistle, Nettle and Docks.

Grants for woodland projects

As a nationally rare habitat upland woodland is one of several singled out for restoration in rural development programmes covering upland Britain. Landowners may be eligible for grant-aid to support conservation and restoration work and should contact their local Forestry Commission office or Farming and Wildlife Group (FWAG) for further information.

Local contacts

Conservation Advisers are employed by FWAG and the RSPB in many parts of Britain, while government agencies can also provide information on grants and may also have information about special projects in your area. Consult the websites of these organisations for details, or see the local telephone directory.

Further information

Information on conservation of the Black Grouse:

www.blackgrouse.info/about/ecology.htm

Action plans for upland ashwoods and upland oakwood can be found on: www.ukbap.org.uk

Flora locale's website: www.floralocale.org – for information on using native flora, case studies and suppliers of source-identified trees and shrubs.

Conservation Volunteers Northern Ireland. *Our trees: A guide to growing Northern Ireland's native trees from seed.* £5 from CVNI, 159 Ravenhill Road, Belfast BT6 0BP, Tel: 02890 645169.

Gwynedd Council/Countryside Council for Wales.

Growing native trees from seed. A guide to growing native broad-leaved trees and shrubs from seed. ISBN 1 86169 061 4. CCC 157. Tel: 01248 385500 to order (free).

Forestry Commission Local Seed Zones map:

[www.forestry.gov.uk/website/pdf.nsf/pdf/provmap.pdf/\\$FILE/provmap.pdf](http://www.forestry.gov.uk/website/pdf.nsf/pdf/provmap.pdf/$FILE/provmap.pdf)

Herbert, R. et al. 1999. *Using local stock for planting native trees and shrubs.* Forestry Commission.

Harmer, R. 1999. *Using natural colonisation to create or expand new woodlands.* Forestry Commission.

Harmer, R. 1999. *Creating new native woodlands: turning ideas into reality.* Forestry Commission.

Harmer, R. and Gill, R. 2000. *Natural regeneration in broadleaved woodlands: deer browsing and the establishment of advance regeneration.* Forestry Commission.

National Urban Forestry Unit. Creating woodlands by direct seeding. Leaflet. See www.nufu.org.uk for information on propagating native trees.

www.british-trees.com/guide/home.htm – information on propagating and growing native trees.

The Tree Council. 2000. *The good seed guide: all you need to know about growing trees from seed.* £3.50 from The Tree Council, 51 Catherine Place, London SW1E 6DY. See www.treecouncil.org.uk for information on tree planting and native trees, including a seed gathering chart.

For further advisory notes, case studies, 'Guidelines for planting in the countryside', training opportunities and suppliers of native flora, go to www.floralocale.org



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