

North York Moors National Park Authority

Juniper
Species action plan



North York Moors National Park

Juniper Species Action Plan

2008–2012

Juniper (*Juniperus communis*)

Our objective for juniper is:

To ensure the future regeneration of juniper within the National Park through the conservation of existing specimens and the reintroduction of seedlings to suitable habitats.

Introduction

Juniper (*Juniperus communis*) is a coniferous shrub native to the British Isles. The species was an early coloniser of postglacial landscapes and has persisted in suitable habitats throughout its range. Currently it is found mainly in the Highlands of central and eastern Scotland, but populations also exist in Wales and in northern and southern England.

Juniper will grow on both acid and calcareous soils at a range of altitudes. In northern Britain juniper occurs in open birch and pine woods and on upland heath. Juniper supports a characteristic native invertebrate fauna, including some species with specialised habitat requirements and restricted distributions within the UK. Thirty-five insects and three mites are specifically associated with it – for example, the moths juniper carpet (*Thera juniperata*) and juniper pug (*Eupithecia pusillata*). Juniper bushes can also provide an important food source for berry-eating birds including thrushes, fieldfares and waxwing.

Juniper bushes are dioecious – that is, the males produce pollen and the females berries. Though round in shape, the berries are actually cones with fused fleshy scales which contain several seeds. Birds are thought to be important dispersal agents for juniper. The fruit surrounding the seed is thought to contain a germination inhibitor. When the fruit is broken down in the bird's gut and passed out, the germination rate increases. This suggestion is backed up by evidence that more seedlings germinate close to areas where birds can perch than in areas where berries fall directly from bushes.

National status

Juniper is a species of conservation concern regarded as endangered. It is not nationally scarce, but in England it is becoming increasingly rare as a vegetation type. In southern England, juniper is in a particularly critical state of decline with contractions of its range caused by habitat fragmentation and extinction. Studies conducted on the DNA of British juniper have shown that there can be a large degree of genetic diversity within even a small population, and populations occurring across Britain appear to be genetically discrete.

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Existing English juniper populations appear to be regenerating very poorly. Populations occur in Cumbria, where juniper is locally abundant in some parts, and in County Durham and Northumberland, where it is very localised and is known to have undergone substantial decline between 1973 and 1995.

Local status

In the North York Moors, single junipers or small clusters of shrubs grow in Baysdale, Keysbeck, Fryupdale and Danbydale. A sizeable colony survives on north-facing scree at Greenhow, Botton. No natural regeneration of these aging shrubs has been observed and the species is considered to be on the brink of local extinction. Mature Juniper is unable to survive burning, and the few remaining bushes are either on very wet areas or in inaccessible gills where moorland burning is not generally a feasible management option.

Legal status

Although juniper has no specific legal protection it is found on moorland which is protected as a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Special Area for Conservation (SAC).

Links to other action plans

Habitat Action Plans:	Species Action Plans:
Moorland*#	Moorland birds*#
* = Local Species Action Plan	
# = UK Species Action Plan(s)	

Threats

- Populations of juniper in the North York Moors are aging and isolated. This has severe implications for regeneration. It has been shown that with age the number of berries on juniper bushes decreases and the viability of seed is diminished. Juniper also requires the presence of male and female plants for regeneration.
- Juniper is unable to withstand moorland burning.
- Grazing by sheep, rabbits, deer and probably by small mammals can affect the shape of the bushes if browsing is persistent. Winter grazing can be particularly damaging to young plants and can eliminate natural regeneration. Small rodents find juniper berries and seeds very palatable and juniper seedlings are vulnerable to herbivore damage.
- Juniper is a pioneer species and tall grass can inhibit the establishment of young juniper. It is very intolerant of shade, so closure of the woodland canopy can result in the loss of the species, as can afforestation. Bare ground might be essential to the regeneration of juniper and competing vegetation must be controlled where seedlings exist.

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Requirements

- Maintain contact with landowners who have juniper scrub, to ensure that they are aware of its importance and do not burn moorland in the vicinity.
- Analyse the habitats associated with junipers and examine the environmental data (eg soil analysis) to give a better idea of how to conserve and successfully reintroduce juniper.
- Propagate local origin juniper and plant out seedlings to diversify the age structure of old juniper scrub areas.
- Keep and maintain a record of all sites where juniper is planted, detailing the location of the plant material origin.
- Examine areas where juniper is now extinct, with a view to future reintroduction.
- Encourage, manipulate and monitor natural juniper regeneration.

Local action

- Records of all known juniper sites within the National Park have been gathered.
- All landowners with juniper have been contacted and maps and management advice have been distributed amongst them to help conserve these special plants.
- Enclosures with scraped ground and bird perching posts have been prepared near existing juniper scrub to aid natural regeneration.
- Local origin juniper has been very successfully propagated by Peter Woods and is now being widely planted out in all existing juniper areas, and in additional suitable sites through the New Native Woodland schemes.
- Records are being kept of newly planted juniper areas.

Opportunities

- Partnership working with Natural England to achieve good habitat management on moorland through agri-environment schemes.
- Examine the current grazing regimes in juniper areas and consider adapting them or using alternatives to traditional moorland management, such as grazing with Exmoor ponies and cutting heather for biofilters.

What can you do to help

- Avoid burning juniper.
- Liaise with the National Park over planting new juniper saplings on your land.

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- Liaise with the National Park to scrape vegetation cover near planted or existing juniper trees to encourage seeds to germinate.