NatureScot
Scotland's Nature Agency
Buidheann Nàdair na h-Alba

TYNRON JUNIPER WOOD SPECIAL AREA OF CONSERVATION (SAC)

CONSERVATION ADVICE PACKAGE

Tynron Juniper Wood SSSI/SAC © Beth Wilson/NatureScot

Site Details

Site name:	Tynron Juniper Wood
Map:	https://sitelink.nature.scot/site/8404
Location:	South Western Scotland
Site code:	UK0030294
Area (ha):	6.54
Date designated:	17 March 2005

Qualifying features

Qualifying feature	Assessed condition	SCM visit date	UK overall Conservation Status
Juniper on heaths or calcareous grasslands	Unfavourable Recovering	30th October 2009	Unfavourable - Bad

Notes:
Assessed Condition refers to the condition of the SAC feature assessed at a site level as part of NatureScot's Site Condition Monitoring (SCM) programme.
Conservation status is the overall condition of the feature throughout its range within the UK as reported to the European Commission under Article 17 of the Habitats Directive in 2019.

Overlapping Protected Areas

Tynron Juniper Wood SSSI

Key factors affecting the qualifying features

Juniper on heaths or calcareous grasslands

The precise nature of the Juniper habitat is influenced by the calcareous or acidic substrate, altitude, the grazing regime and whether it is a transition between a range of habitats with the result that a range of scrub types may occur within an individual location.

Key management issues at Tynron are grazing, particularly red deer activities, and burning.

Further information about Juniper on heaths or calcareous grasslands can be found on the JNCC website.

Conservation Objectives

Conservation Objectives for *Juniperus communis* formations on heaths or calcareous grasslands [H5130] (Juniper on heaths or calcareous grasslands)

1. To ensure that the qualifying feature of Tynron Juniper Wood SAC is in favourable condition and makes an appropriate contribution to achieving favourable conservation status.

Favourable Conservation Status (FCS) is considered at a European biogeographic level. When determining whether management measures may be required to ensure that the conservation objectives for this site are achieved, the focus should be on maintaining or restoring the contribution that this site makes to FCS.

When carrying out appraisals of plans and projects against these conservation objectives, it is not necessary to understand the status of the feature in other SACs in this biogeographic region. The purpose of the appraisal should be to understand whether the integrity of the site (see objective 2) would be maintained. If this is the case then its contribution to FCS across the Atlantic Biogeographic Region will continue to be met. Further details on how these appraisals should be carried out in relation to maintaining site integrity is provided by objective 2 (including parts a, b and c). If broader information on the feature is available then it should be used to provide context to the site-based appraisal.

Note that "appropriate" within this part of the conservation objectives is included to indicate that the contribution to FCS varies from site to site and feature to feature.

2. To ensure that the integrity of Tynron Juniper Wood SAC is restored by meeting objectives 2a, 2b and 2c for each qualifying feature.

The aim at this SAC is to restore the Juniper on heaths or calcareous grasslands habitat to favourable condition as a contribution to its wider favourable conservation status. Therefore any impacts on the objectives shown in 2a, 2b, or 2c below must not persist so that they prevent the achievement of this overall aim.

When carrying out appraisals of plans or projects the focus should be on restoring site integrity, specifically by meeting the objectives outlined in 2a, 2b and 2c. If these are met then site integrity will be restored. Note that not all of these will be relevant for every activity being considered. Any impacts on the objectives shown in 2a, 2b or 2c below must not persist so that they prevent the restoration and maintenance of site integrity. Temporary impacts on these objectives resulting from plans or projects can only be permitted where they do not prevent the ability of a feature to recover and there is certainty that the features will be able to quickly recover.

This objective recognises that the qualifying habitat is exposed to a wide range of drivers of change. Some of these are natural and are not a direct result of human influences. Such changes in the habitat's extent, distribution or condition within the site which are brought about by natural processes, directly or indirectly, are normally considered compatible with the site's conservation objectives. An assessment of whether a change is natural or anthropogenic, or a combination of both, will need to be looked at on a case by case basis.

2a. Maintain the extent and distribution of the habitat within the site

The area of Tynron Juniper Wood SAC is approximately 6.54 ha. This figure has been taken from the Standard Data Form. The boundary transitions at Tynron SAC are mainly to

improved grassland and therefore the estimate of the site and associated habitat is reasonably accurate. There should be no measurable net reduction in the extent of the habitat and its distribution throughout the site.

There is a small area of woodland (mainly sycamore, ash and cherry) contiguous with the site along its western edge. There may be some opportunity for expansion of juniper beyond the site boundary into this area of woodland. Equally this area acts as a seed source for trees spreading into the SAC which will compete with the juniper. A desirable outcome for the site will require active management of both elements to achieve the right balance.

This conservation objective is considered to be met if the conditions to ensure the habitat's long-term existence are in place.

2b. Restore the structure, function and supporting processes of the habitat

Maintaining juniper on heaths or calcareous grasslands is a fine balance between degrading to open heath or grassland with intensive grazing/browsing or burning and succession to scrub/woodland where the level of grazing is too low.

In order to improve the opportunities for recruitment of new juniper seedlings and remove the threats from scrub encroachment; succession to high woodland; under and over-grazing; trampling, or fire damage; and therefore maintain the appropriate structure, the following conditions should be met:

- Cover of "pioneer" juniper bushes (less than 75cm tall) should exceed the cover of old, 'ailing' or dead bushes (full-grown, well-branched but losing branches with thin or incomplete canopy usually more than 100 years old). This may include older plants that have fallen and layered, which is a common feature at Tynron.

- Less than 10% of bushes should show evidence of bark stripping.

- Less than 33% of the current year's shoots (pale fawn to pale orange brown) should show evidence of having been browsed. This may be caused by rabbits (lower branches – though see note in the conservation measures section below), deer or livestock.

- Less than 33% of shoots should show evidence of having been browsed into shoot or stem material older than the current year's growth (mid-tone orange brown to dark brown).

- Less than 5% of the ground of the feature area should show severe disturbance (e.g. by heavy browsing and trampling or fire).

- Less than 1% of vegetation cover should consist of invasive species. Bracken, (*Pteridium aquilinum*) is the main invasive Tynron.

2c. Maintain, or where appropriate restore, the distribution and viability of typical species of the habitat

The plant community best corresponds to the NVC type *Juniperus communis* ssp. *communis – Oxalis acetosella* woodland.

The site is dominated by juniper, with other scattered trees; ash (*Fraxinus excelsior*), wild cherry (*Prunus avium*), sycamore (*Acer pseudoplatanus*), and oak (*Quercus sp*). The under-storey contains wood-sorrel (*Oxalis acetosella*), heath bedstraw (*Galium saxatile*),

wood sage (*Teucrium scorodonia*) and honeysuckle (*Lonicera periclymenum*). Native grass species are also part of the ground flora; common bent (*Agrostis capillaris*), sweet vernal grass (*Anthoxanthum odoratum*), and wavy hair grass (*Deschampsia flexuosa*).

Bracken has spread throughout the SAC, but is most dense within the central third of the site where there is almost 100% cover in large areas. This has a profound negative influence on the scope for natural regeneration of juniper and limits the growth of even established young trees. Restriction on grazing has also seen a proliferation of broom (*Cytisus scoparius*) and bramble (*Rubus fruticosus*) which also can prevent new juniper from growing.

For long-term maintenance of the site, controlling bracken, scrub and succession to high woodland is necessary. Some of the juniper is also infected by *Phytopthera austrocedri,* which has been found in several samples taken from the site.

The site is noted for a number of insects associated with juniper including the juniper carpet moth *Thera juniperata* and juniper pug moth *Eupithecia pusillata.*

Conservation Measures

Tynron Juniper Wood is notified as a Site of Special Scientific Interest and management changes described on the list of Operations Requiring Consent must have prior consent from SNH (NatureScot).

Current and recommended management for Juniper on heaths or calcareous grasslands [H5130].

Issue	Measure	Responsible party
Grazing and browsing levels.	Damage to young juniper by rabbits has been problematic in the past, though no recent issues have been reported. Deer control measures may be necessary to help encourage natural regeneration of juniper. Introduction of controlled grazing by livestock may be advantageous to help control bracken and create some ground disturbance to help encourage natural regeneration.	Land manager
Successional processes.	Low grazing pressure has seen an increase in tree canopy (oak, ash, cherry, sycamore) and an increase in scrub understorey is limiting opportunities for juniper regeneration. Management should aim to selectively fell trees and address scrub encroachment.	Land manager, NatureScot
Invasive species.	Bracken (*Pteridium aquilinum*) has become well established throughout the SAC with particularly high density in the central third of the site. Its control is being addressed under a management agreement with NatureScot.	Land manager, NatureScot
Research and monitoring	*Phytopthora austrocedri* is present on site and research is ongoing to monitor the disease's impact at Tynron. This will help to inform possible future control and management	NatureScot, universities and research bodies, land managers.

	measures to minimise or prevent spread of the disease. Monitor to identify emerging impacts on the habitat and their causes, in order to understand the long term issues, and to inform future management of the habitat across Scotland.	

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