

NESS WOODS SPECIAL AREA OF CONSERVATION (SAC)

CONSERVATION ADVICE PACKAGE



Image: Glen Tarff, Ness Woods SAC © NatureScot

Site Details

Site name:	Ness Woods
Map:	https://sitelink.nature.scot/site/8337
Location:	Highlands and Islands
Site code:	UK0030223
Area (ha):	841.38
Date designated:	17 March 2005

Qualifying features

Qualifying feature	SCM assessed condition	SCM visit date	UK overall Conservation Status
Mixed woodland on base-rich soils associated with rocky slopes [H9180]*	Unfavourable No change	30 June 2008	Unfavourable-bad
Western acidic oak woodland [H91A0]	Unfavourable No change	30 June 2008	Unfavourable-bad
Otter (<i>Lutra lutra</i>) [S1355]	Unfavourable Declining	21 September 2011	Favourable

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.

* Habitats Directive priority habitat

Overlapping Protected Areas

[Easter Ness Forest Site of Special Scientific Interest \(SSSI\)](#), [Glen Tarff SSSI](#) and [Inverfarigaig SSSI](#).

Key factors affecting the qualifying features

Ness Woods SAC is composed of three areas of woodland running alongside and to the south of Loch Ness. It contains a mix of woodland habitats and these, together with several watercourses that run through the site, provide suitable habitat for otters.

Mixed woodland on base-rich soils associated with rocky slopes

This habitat typically occurs in association with base-rich rocks in steep-sided immature river valleys, and is found on nutrient-rich soils that often accumulate in the shady micro-climates towards the bases of slopes and ravines. Such forests are not extensive but fragmentary stands that then grade into other woodland types on level valley floors or slopes above.

Key management issues for this habitat include grazing levels, problematic native and non-native species, air pollution and urban development.

The woodland is considered to be in an unfavourable condition at this site due to grazing pressures, poorly developed under-storey and canopy cover, and limited woodland regeneration.

Western acidic oak woods

This habitat type comprises a range of woodland types dominated by mixtures of oak and birch. It is characteristic of base-poor soils in areas of at least moderately high rainfall. A key feature of importance within this habitat type is the well-developed Atlantic bryophyte communities it can support.

The woodland is considered to be in an unfavourable condition at this site due to grazing pressures, poorly developed under-storey and canopy cover, and limited woodland regeneration.

Both western acidic oak woodland and mixed woodland on base-rich soils associated with rocky slopes require low but not zero grazing. High levels of grazing can distort the structure and composition of the woodlands, especially leading to an impoverished ground flora, and restricting regeneration of the more palatable tree species such as oak, ash and holly. This eventually results in a woodland dominated by older trees, and by the less palatable species such as birch, and lacking normal representation of intermediate life classes. Too little grazing can result in a lack of structural diversity in the canopy and over shading which can impact negatively on important lichen and bryophyte communities. The presence of non-native species such as Rhododendron, and exotic conifers, can also impact the habitat, shading out ground flora and epiphytes, and preventing natural regeneration of native tree and shrub species. In the future new stresses to the feature, particularly from climate change, chalara ash-dieback and possibly other novel pests and pathogens, are anticipated.

Otter

Otter require continued proximity to unpolluted open water either freshwater or coastal. There should be a plentiful food supply and features for providing shelter for both resting and breeding. They are wide ranging and normally occur at low densities.

Previous population declines in otters across Scotland were primarily due to pollution and persecution. The last site condition monitoring assessment in 2011 concluded that otters are in an unfavourable condition at this site as there has been a decline in the number of field signs recorded since the previous survey. However the level of

confidence in the survey results is low due to difficult survey conditions and no access to one of the areas where otter signs were previously found.

Further information about these [habitats](#) and [species](#) can be found on the JNCC website.

Conservation Priorities

Mixed woodland on base-rich soils associated with rocky slopes is a Habitats Directive priority habitat and therefore management of this feature should have priority over the other features of the site. In practice measures that are beneficial to this habitat are also likely to benefit the western acidic oak wood habitat and there is unlikely to be any conflict in management between the two features.

Conservation management for woodland should also not impact the otter feature of the site. However the impact of any proposed management measure on all the qualifying features should first be considered as part of a Habitats Regulations Appraisal.

Conservation Objectives

Overarching Conservation Objectives for all habitat features

1. To ensure that the qualifying features of Ness Woods SAC are in favourable condition and make 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 Ness Woods SAC is restored by meeting objectives 2a, 2b and 2c for each qualifying feature
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The aim at this SAC is to restore the qualifying features to a favourable condition as a contribution to their wider conservation status. Therefore any impacts to 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 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 habitats are 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 habitats' 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.

Conservation Objectives for mixed woodland on base-rich soils associated with rocky slopes (also known as *Tilio-Acerion* forests of slopes, screes and ravines)

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

The extent of the mixed woodland on base-rich soils associated with rocky slopes feature within the site has been estimated at 25.24ha. The area figure is an estimate and has been taken from the Standard Data Form. Fundamentally however there should be no measurable net reduction in the extent of the habitat and its distribution throughout the site.

The geology in this area is complex; the habitat occurs on nutrient-rich soils that have formed in association with the more base-rich of the Moine rocks, and where there is base-rich flushing. The SAC includes three areas; all three comprise mosaics of the two woodland types for which the SAC is designated. However, the mixed woodland on base-rich soils associated with rocky slopes feature dominates at Glen Tarff and Inverfarigaig, whereas Easter Ness Forest supports both types.

Impacts that could lead to a permanent reduction in the extent or distribution of the habitat should be avoided. In particular there should be no habitat loss from within or at the edge of the woodland and no habitat fragmentation. A lack of regeneration by native species, such as could occur through high herbivore impacts, will also lead to a long term decline in woodland extent.

At Glen Tarff an unauthorised track upgrade resulted in the loss of approximately 1.2 ha of woodland. Measures to restore and rationalise the access track have been identified and these will help to restore the woodland habitat in this area. These will require ongoing monitoring to ensure their success.

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

This habitat depends on nutrient-rich and base-rich soils and shady micro-climates found towards the bases of slopes, coarse scree, cliffs, steep rocky slopes and ravines. It is characterised by tree cover that:

- Has a mixed forest structure including young, mature, dying and dead trees in dense thickets and open glades with a range of shade cast on the woodland floor.

- Is made up of diverse broadleaved tree and shrub species, but most consistently and abundantly by species with the characteristics (shade, leaf decay, structure, bark pH and obligate/associated dependent species) of ash, hazel and wych elm.
- The slopes on which this woodland type develops are often unstable, leading to an element of dynamism in their structure. Whilst this adds to the diversity of the communities present, it also makes the woodland vulnerable to disturbance from human activities. If disturbance is too frequent, or present over too large an area, it may lead to loss of woodland area and typical species, and recovery might be slow.

The ground flora associated with the habitat is linked to variations in moisture and shade, or 'disturbance communities' associated with scree and cliff-bases.

These characteristics can be achieved by maintaining an abundance of key tree species, particularly ash, hazel and wych elm, an absence of invasive species which compromise the critical characteristics of the habitat, and grazing levels that allow all species of trees, shrubs and ground flora to develop naturally and flower, fruit etc.

Grazing pressures mean the ground flora, shrub layer and canopy cover all need to be restored so that the woodland has a more natural structure. Measures are also needed to ensure mixed age classes of trees are present.

2c. Restore the distribution and viability of typical species of the habitat

The main NVC types conforming to Tilio-Acerion forests are the 'western' forms of W8 *Fraxinus excelsior* – *Acer campestre*-*Mercurialis perennis* woodland, and the equivalent north-western community W9 *Fraxinus excelsior* – *Sorbus aucuparia* – *Mercurialis perennis* woodland.

The key tree species for this habitat are ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), and wych elm (*Ulmus glabra*).

The ground flora is very varied, but the following elements are especially characteristic: fern banks (including beech fern *Phegopteris connectilis*, oak fern *Gymnocarpium dryopteris*, hard shield fern *Polystichum aculeatum*, lady fern *Athyrium, felix-femina*, brittle bladder fern *Cystopteris fragilis*, mountain fern *Oreopteris limbosperma* and buckler-ferns *Dryopteris* species); stands of ramsons *Allium ursinum* in the moister zones; dog's mercury *Mercurialis perennis* and enchanter's-nightshade *Circaea* species on drier but still base-rich soils, the grasses mountain melick *Melica nutans* and wood fescue *Festuca altissima*; wood avens *Geum urbanum*, and natural 'disturbance communities' comprising common nettle *Urtica dioica*, herb-Robert *Geranium robertianum* and cleavers *Galium aparine* associated with scree and cliff-bases. The bryophyte and lichen communities are also rich, and includes the nationally scarce lichen *Fuscopannaria ignobilis* at Inverfarigaig. Species associated with *F. ignobilis* at Inverfarigaig include *Degelia plumbea*, *Lobaria pulmonaria*, *L. scrobiculata*, *L. virens*, *Nephroma laevigatum*, *Normandina pulchella*, *Pannaria rubiginosa* and *Peltigera collina*.

False-brome *Brachypodium sylvaticum*, bugle *Ajuga reptans*, woodruff *Galium odoratum*, wild strawberry *Fragaria vesca* and common valerian *Valeriana officinalis* are also found at this site and Glen Tarff supports locally important plants such as wood crane's-bill *Geranium sylvaticum*.

The rivers Farigaig and Tarff and several small streams run through the woodland into Loch Ness and these areas, together with the rocky ground and tree roots, provide excellent

habitat for otters. Red squirrel are also present.

Grazing levels can impact the typical species of this site. The ground flora, shrub layer and canopy cover all need to be restored and measures put in place to ensure mixed age classes of trees are present.

Tree Health implications

Many of the characteristics of mature Wych elm are reduced or absent in many locations due to Dutch elm disease (DED). However, it usually continues to persist as an 'auto-coppicing' shrub after the loss of the mature trees, so long as grazing impacts are low enough for it to continue to grow. Ash is beginning to show extensive infection from Ash Dieback (ADB). While the end point of the disease is not known, some level of resistance has been found in most populations, and the main threat to this is the prevention of regeneration by high herbivore impacts. Meanwhile, it is likely that a high proportion of the mature ash will be damaged, with a short-term increase in deadwood. Other trees, such as hazel, rowan, willow and aspen, support many of the species associated with ash, although their nutrient cycling properties differ somewhat. Probably the most important management requirement for this habitat is to ensure low enough herbivore impacts to allow all tree and shrub species present to regenerate. This will maximise the opportunity for ash to develop resistance to ash dieback, and allow other species to regenerate as well, to ensure a species-rich tree and shrub layer.

Conservation Objectives for western acidic oak woods (also known as old sessile oak woods with *Ilex* and *Blechnum* in the British Isles)

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

The extent of the western acidic oak woodland feature, taken from the Standard Data Form, has been estimated at 538.48ha. This should be maintained or allowed to increase through natural regeneration. There should be no measurable net reduction in the extent of the habitat and its distribution throughout the site.

To avoid any permanent reduction in the extent or distribution of the habitat, no habitat loss should take place from within or at the edge of the woodland, through non-native forestry planting, or dumping of waste. A lack of regeneration by native species, such as could occur through high herbivore impacts, will also lead to a long term decline in woodland extent.

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

This habitat type comprises a range of woodland types dominated by mixtures of oak. It is found in areas of base-poor soils with at least moderately high rainfall, and the key elements that should be in place include:

- Mixed age classes of trees, canopy cover, deadwood/fallen trees, understorey, ground flora & epiphytic plants. At this site there are low levels of native tree species regeneration. A more natural ground flora, shrub layer and canopy cover should also be allowed to regenerate.
- Large, long lived trees with the characteristics of existing species, especially the defining species of oak (bark chemistry and structure, shade, leaf litter, fruiting, senescence and deadwood development)
- Low levels of herbivore impacts, to allow all species of trees and shrubs to

regenerate, and healthy growth of ground flora, including flowering and fruiting. At this site grazing is contributing to the lack of regeneration by native tree species and affecting the composition of ground flora, shrub layer and canopy cover within the site.

- Levels of humidity capable of supporting characteristic bryophyte and lichen assemblages.
- Absence of invasive non-native species, especially *Rhododendron*.
- Prevention of pathogen arrival, establishment and spread.

The vascular plant community is generally species-poor, characterised by ericoid shrubs, bracken and grasses. However, the communities of ferns, and particularly lichens and bryophytes, are luxuriant and species rich.

2c. Restore the distribution and viability of typical species of the habitat

The habitat corresponds broadly to the western oakwoods described in previous accounts of UK woodlands; the principle NVC types at this site are :

- W11 *Quercus petraea* – *Betula pubescens* – *Oxalis acetosella* woodland
- W17 *Quercus petraea* – *Betula pubescens* – *Dicranum majus* woodland

The key tree species found in this habitat are oak (*Quercus robur* and/or *Q. petraea*) and birch (*Betula pendula* and/or *B. pubescens*). There is significant variation between individual stands of the habitat in domination by either oak or birch. Holly and hazel are also important components of the habitat.

The ground flora consists of blaeberry *Vaccinium myrtillus* and wavy hair-grass *Deschampsia flexuosa* with bell heather *Erica cinerea* and cow-wheat *Melampyrum pratense*.

Western acidic oak woodland supports an important component of Britain's oceanic bryophyte flora and lichen mycota. The distribution and viability of these assemblages should be maintained with particular focus on nationally rare, scarce and/or threatened species and on assemblages that indicate a long period of ecological continuity. Whilst the mixed woodland on base-rich soils associated with rocky slopes feature at Ness Woods SAC supports rich lichen communities, the bryophyte flora is richer in the western acidic oak woodland.

The rivers Farigaig and Tarff and several small streams run through the woodland into Loch Ness and these areas, together with the rocky ground and tree roots, provide excellent habitat for otters. Red squirrel are also present.

The site is also important for the rare beetle, *Bolitophagus reticulatus*, which in the UK is found only in the highlands of Scotland. The beetle larvae feed on the bracket fungus *Fomes fomentarius* which colonises old birch trees.

Grazing levels can impact the typical species of this site. The ground flora, shrub layer and canopy cover all need to be restored and measures put in place to ensure mixed age classes of trees are present.

Conservation Objectives for otter

1. To ensure that the qualifying features of Ness Woods SAC are in favourable condition and make 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 Ness Woods SAC is restored by meeting objectives 2a, 2b and 2c for the qualifying feature

The aim at this SAC is to maintain the species in a favourable condition as a contribution to its wider 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 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 species are exposed to a wide range of drivers of change. Some of these are natural (e.g. population fluctuations/ shifts or habitat changes resulting from natural processes) and are not a direct result of human influences. Such changes in the qualifying species’ distribution and use of 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 population of the species as a viable component of the site

The conditions for the long-term existence of the otter population at Ness Woods SAC should be maintained.

An estimate of the number of otters occupying the site is not available and therefore there is no numerical baseline that can be given for the site. A survey was carried out for site condition monitoring purposes in 2011 however this just involved a sample of the site. Difficult survey conditions also meant that otter detectability (through field signs) may have

been compromised.

This conservation objective is considered to be met if the conditions for the species' long-term existence are in place. This includes:

- avoiding effects that could lead to a permanent reduction in the otter population through mortality, injury, or impacts caused by disturbance or displacement. This includes for example the effects caused by development, river engineering, water pollution, roads without adequate crossing provision for otters or suitable culverts, or entanglement in fishing gear.
- maintaining the species' ability to use all areas of importance within the site (to be considered under conservation objective 2b)
- maintaining access to, and availability of, undisturbed resting places
- maintaining access to, and availability of, supporting habitats and prey (to be considered under conservation objective 2c).

Otters are wide-ranging and highly mobile. The population at Ness Woods SAC is reliant on suitable habitat in the surrounding wider countryside. The home range of an otter will vary depending on their sex, habitat quality and food availability. It will also vary between freshwater and coastal environments. Males living in rivers and streams can have a linear home range size of around 40km and females living in the same habitat can have a linear home range of around 20km. Males have been known to range as far as 80km. When assessing the effects of any plan or project consideration should be given to whether impacts outwith the SAC could affect achievement of this conservation objective.

Otters are a European protected species (EPS) and it is an offence to deliberately or recklessly capture, injure, kill, harass or disturb them in certain circumstances, or to damage or destroy their breeding or resting places anywhere in Scotland unless a licence has been issued to do so. A licence can only be issued for particular purposes which the law allows. Further, there must be no satisfactory alternative and no detrimental impact on the contribution to the maintenance of otter at a favourable conservation status for a licence to be issued. This assessment considers impacts on the otter population at a local and regional level. The licensing requirement is in addition to considering whether a plan or project will result in any impacts (including incidental impacts) to the otter population within the SAC.

2b. Maintain the distribution of the species throughout the site

Otters should be able to use and access all areas of importance within the SAC and their distribution throughout the site should be maintained.

Distribution of otters within the site can be affected by disturbance originating both within and outwith the site. Plans and projects that cause displacement and barrier effects to the species can also affect species distribution. Examples include road and bridge construction works and general disturbance from human activity (and dogs) by watercourses especially at dusk/night-time.

2c. Maintain the habitats supporting the species within the site and availability of food

The distribution and extent of otter habitat within the site should be maintained, together with the structure, function and supporting processes of the habitat.

Otters require suitable habitat for foraging, breeding and resting. In freshwater environments abundant boulders, crevices and/or peat, or other cavity-forming features such as tree root systems are needed to provide secure holt sites above high water. Dense scrub is also valuable for providing lie-ups and couches. Suitable areas supporting a healthy fish population within a nearby watercourse or still water body are required within each otter's home range, to enable foraging for key prey species such as salmonids and eels. Access to

ponds, ditches, reedbeds and wetlands where amphibians may breed is also important.

Changes to water flow and water quality can adversely affect otter habitat and prey on which they depend. Otters' food supply is normally associated with good water quality and therefore the water quality standards set out under the Water Framework Directive (2000/60/EC) should be met.

Conservation Measures

Ness Woods SAC 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 both qualifying habitats

Issue	Measure	Responsible party
Hydrology	Ensure natural hydrological processes and levels of humidity are maintained to support characteristic bryophyte and lichen assemblages.	Landowners Land managers SEPA NatureScot
Herbivore impacts	Ensure that herbivore impacts are low based on the FCS/NatureScot Herbivore Impact Assessment Process and do not prevent the regeneration of ash and oak, or the development of a more natural ground flora, shrub layer and canopy cover. Fencing has taken place in some areas to help manage grazing impacts. Some exclosures are however not excluding grazing sufficiently to allow the necessary species to regenerate and this will need to be addressed.	Land managers, NatureScot, Deer Management Groups
Imbalance in age structure of trees	There is a shortage of young native trees and saplings across the site. Management should reduce herbivore impacts so that all species of tree and shrub are able to regenerate.	Land managers NatureScot Deer Management Groups
Unauthorised track upgrade at Glen Tarff	Measures to restore and rationalise the access track have been identified and these will help to restore the woodland habitat in this area.	The Highland Council Land manager NatureScot
Non-native species	The proximity of plantation woodland means that regeneration of non-native tree species from windblown seed takes place within the site and could modify the native woodland habitats if left unchecked.	Land managers
Future threats	A coordinated resilience planning process should be developed to respond	NatureScot Land managers

	to anticipated future threats to the habitat. Management actions arising from the resilience planning process, and site-level plans, should be implemented to anticipate future threats to the habitat on the site. This resilience work may also include further research to understand the vulnerabilities of the habitat.	
Avoidance of introduction of known pathogens	Discussions on options available to avoid any introduction of known disease organisms.	Land managers, NatureScot
Climate change	Discussions on options available and participation in available local, national and international initiatives	Land managers, Local authority, Scottish/UK government, NatureScot
Research and monitoring	To identify emerging impacts on the habitat and their causes, in order to understand the long term issues, identify refugia, review site-level resilience plans in the light of updated future threat projections and to inform future management of the habitat across Scotland.	NatureScot, Universities, land managers

Current and recommended management for otters

Issue	Measure	Responsible party
Ongoing species protection	Otter are a European protected species and therefore the species protection provisions of the Habitats Regulations apply.	All
Monitoring	A further survey of the site should help to establish whether there has been a decline in the number of signs of otter using the site since the previous survey. A review of the approach to sampling this site may be beneficial.	NatureScot
Water quality/quantity monitoring	Implement and maintain monitoring of key water quality/quantity parameters.	NatureScot/SEPA

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Approved on 20 May 2020 by:

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