

Native Woodland

Definitions & Guidance

Northern Ireland Native Woodland Group



Foreword

Foreword



Native woodland is a scarce resource, but one with which we can identify and associate with places of beauty and tranquillity. What little has survived the pressures of exploitation and clearance occurs mostly as remnant features in a fragmented historic landscape. These remnants provide vital refuges for many species that would otherwise have been lost from the countryside.

Establishing new areas of native woodland in the landscape, and planting native trees within established forests, will protect native woodland habitats and species. Planting new native woodland can create links between isolated woods, increase

their resilience, and provide opportunities for colonisation by native woodland flora and fauna. Increasing the area of native woodland is an important element of the Northern Ireland Biodiversity Strategy.

This booklet is intended to inform and advise foresters, ecologists and conservationists with an interest in native trees and native woodlands. I acknowledge the contribution of organisations that are represented in the Northern Ireland Native Woodland Group and the efforts of the Group in producing this booklet.

A handwritten signature in black ink that reads "Stuart Morwood".

Stuart Morwood
Northern Ireland Native Woodland Group Chairman



The Northern Ireland Native Woodland Group is comprised of representatives of the following bodies:

Environment and Heritage Service
Forest Service
Council for Nature Conservation and the Countryside
Department of Agriculture and Rural Development
Forest of Belfast
Forestry and Timber Association
National Trust
Ulster Wildlife Trust
Woodland Trust
Conservation Volunteers Northern Ireland

The Group also includes Dr Alan Cooper, University of Ulster and Neville McKee, Ulster Native Trees

The Northern Ireland Native Woodland Group acknowledges the contributions of Dr Declan Little, Woodlands of Ireland, and Dr John Cross, National Parks and Wildlife Service.

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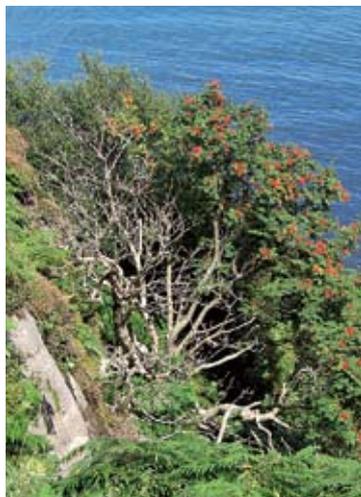
Definitions & Guidance

The Need for Definitions and Guidance



Definitions of native woodland and guidance on various aspects of practice serve a variety of purposes:

- providing information to landowners, managers and practitioners that will guide their selection of tree species and local provenances for establishing new native woodland;
- providing guidance with regard to the planning of forestry projects in respect of statutory environmental and forestry requirements, The UK Forestry Standard (2004) and Guidelines, and grant schemes administered by the Department of Agriculture and Rural Development, by Forest Service, or by Environment and Heritage Service;
- enabling the recording of new native woodland in relation to targets contained in Northern Ireland native woodland Habitat Action Plans (HAPs).



This Definitions and Guidance booklet has been produced by the Northern Ireland Native Woodland Group, which includes representatives of Government Departments, private forestry and non-governmental organisations.

Descriptions of native woodland habitat types are provided in Appendix I.

Information in relation to environmental and forestry regulation and forestry grant schemes is given in Appendix II.

A glossary of terms used is included in Appendix III.

Further Information

Guidance in relation to the site preferences of native species is given in *Our Trees. A Guide to Growing Ireland's Native Trees. In Celebration of a New Millennium*. 2000. The People's Millennium Project, Coillte. Newtownmountkennedy, Co. Wicklow. Also, *A Guide to Forest Tree Species Selection and Silviculture in Ireland*, edited by Joe O'Carroll. 2003. COFORD.

Guidance in relation to the design of new native woodland is given in *Creating New Native Woodlands* by Gordon S Patterson. 1994. Forestry Commission Bulletin 112.

Guidance in relation to the management of established native woodland is provided in *The Management of Semi-natural Woodlands* (Nos. 1-8). 2003. Forestry Commission Practice Guides, available from the Forestry Commission website: ([www.](http://www.forestry.gov.uk))forestry.gov.uk. Also, *Realising Quality Wood from Ireland's Native Woodlands. Silvicultural Guidelines for Wood Production in the context of the Native Woodland Scheme* by Declan Little and John Cross. 2005. Woodlands of Ireland. Dublin.

Guidance on the use of natural colonisation is given in *Using Natural Colonisation to Create or Expand Native Woodlands* by Ralph Harmer. 1999. Forestry Commission Information Note 23, available from the Forestry Commission website: forestry.gov.uk.

The UK Forestry Standard and *Forests and Water Guidelines* (4th edition, 2003) are available from the Forest Service website: forestserviceni.gov.uk. Further UK Guidelines, including guidelines in relation to Forests and Landscape, Biodiversity, Soil, and the Historic Environment, are in preparation.

Northern Ireland Native Woodland Habitat Action Plans are available from the Environment and Heritage Service (EHS) website: ehsni.gov.uk.



Native Trees

Native Trees

Definition

A tree is defined as a woody perennial with a single stem, or in the case of coppice, with several stems, having a more or less definite crown. Trees should be able to reach a minimum height of 5m in situ.

(FAO Global Forest Resources Assessment (GFRA) 2005)

Site-native trees are those appropriate for a particular site because they are native to the locality and are capable of growing and naturally regenerating under the environmental conditions of the site.

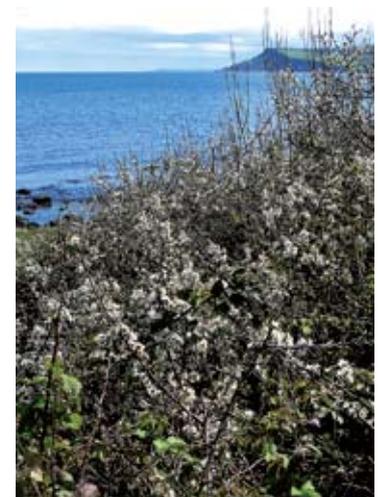
Guidance

The table below lists tree species that are known to occur naturally in the province of Ulster, either throughout the province or within a local area. 'Naturally occurring' includes those species that are known to have existed in a particular ecosystem or at a given location without the influence of humans.

The table is divided into sections to give an indication of the status of different native tree species occurring widely within native woodland in Northern Ireland, and to include species that occur locally.

	Common name	Botanical name
Dominant tree species:	Alder	<i>Alnus glutinosa</i>
	Downy birch	<i>Betula pubescens</i>
	Hazel	<i>Corylus avellana</i>
	Ash	<i>Fraxinus excelsior</i>
	Sessile oak	<i>Quercus petraea</i>
	Pedunculate oak	<i>Quercus robur</i>
	Rowan	<i>Sorbus aucuparia</i>

	Common name	Botanical name
Understorey tree species and minor constituents:	Silver birch	<i>Betula pendula</i>
	Hawthorn	<i>Crataegus monogyna</i>
	Spindle	<i>Euonymus europaeus</i>
	Holly	<i>Ilex aquifolium</i>
	Crab apple	<i>Malus sylvestris</i>
	Aspen	<i>Populus tremula</i>
	Wild cherry	<i>Prunus avium</i>
	Blackthorn	<i>Prunus spinosa</i>
	Goat Willow	<i>Salix caprea</i>
	Grey willow	<i>Salix cinerea</i>
	Elder	<i>Sambucus nigra</i>
	Wych elm	<i>Ulmus glabra</i>
Guelder rose	<i>Viburnum opulus</i>	





Species locally native to certain areas of Northern Ireland but not the region as a whole, rare species, sub-species and species of uncertain status:

Alder buckthorn
 Black poplar
 Bird cherry
 Purging buckthorn
 Sally
 Dark-leaved willow
 Bay willow
 Purple willow
 Osier
 Whitebeam
 Irish whitebeam
 Rock whitebeam
 Yew

Frangula alnus
Populus nigra ssp. betulifolia
Prunus padus
Rhamnus catharticus
Salix atrocinerea
Salix myrsinifolia
Salix pentandra
Salix purpurea
Salix viminalis
Sorbus aria
Sorbus hibernica
Sorbus rupicola
Taxus baccata



Some woody species are not capable of reaching the minimum height needed to be included in the definition of trees. They tend to occur only in localised areas:

Juniper
 Eared willow

Juniperus communis
Salix aurita

Once-native tree species believed to have become extinct since the most recent glacial period:

Scots pine

Pinus sylvestris

Native Woodland

Native Woodland

Guidance

The species composition of a native woodland is determined by environmental conditions and local seed sources. Native woodland in Ireland is distinctive as a result of the mild, moist climate, and the occurrence of fewer woodland flora and fauna compared with Britain and continental Europe.

In Northern Ireland, native woodland is classified into three priority habitats in accordance with the UK Biodiversity Action Plan: oakwood, mixed ashwoods and wet woodland. Each of these habitat types is subject to a Habitat Action Plan (HAP) within the NI Biodiversity Strategy. An individual woodland may, however, include more than one habitat type.



Definition

A woodland is defined as land spanning more than 0.5ha with trees higher than 5 metres and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use. (GFRA 2005)

A native woodland is an area of woodland largely consisting of site native trees and shrubs, where an associated woodland flora is present or may develop over time.

(For the purposes of the UK report to GFRA, woodland is defined as land of a minimum area of 0.1 ha with trees able to achieve a canopy cover of 20% or more).

Specific criteria for priority woodland are listed in each HAP and include:

- woodland area greater than 0.5 ha;
- canopy cover greater than 20%, or the potential to achieve this in the case of regenerating or newly planted woodland;
- a canopy comprised of 50% or more of site-native trees or shrubs;
- typical woodland ground flora (which may be under non-native tree species such as beech).

Woodland meeting these criteria can be related to a priority habitat on the basis of site characteristics and reference to the National Vegetation Classification (NVC). Further information is provided in Appendix I.



New Native Woodland

New Native Woodland

Guidance

New native woodland design plans should meet the following requirements:

- 🌿 tree species selection for planting should match the site conditions and priority woodland type (see Appendix I);
- 🌿 the planned woodland area should be greater than 0.5 ha;
- 🌿 there should be potential to achieve a canopy cover of 20% or more;
- 🌿 80 - 100% of tree species in the woodland should be native trees ¹;
- 🌿 the woodland should include no more than 30% Scots pine ¹;
- 🌿 local provenance stock should be used wherever possible;
- 🌿 the woodland should not include any non-native invasive species ².

1 The use of more than 20% of a non-invasive and preferably deciduous non-native species (e.g. European, Japanese or hybrid larch), or of more than 30% Scots pine planted as a 'nurse species' to assist establishment of site-native species, does not preclude the classification of a woodland as a new native woodland, when at a later stage the nurse component is reduced to 20% or less of non-native species or 30% or less Scots pine.

2 Non-native tree species considered to be invasive include beech, sycamore, Norway maple, grey alder, lodgepole pine and western hemlock. Non-native invasive woody species such as rhododendron, laurel, snowberry, buddleia must not be planted. Regeneration of invasive plant species cleared prior to the establishment of the woodland should be controlled using an appropriate method.

Definition

New native woodland is native woodland which has been planted, or allowed to colonise or regenerate naturally, on open ground or within a non-native woodland or forest (excluding planted ancient woodland sites).

New native woodland established since 1999 contributes to UK Biodiversity Action Plan targets. In addition, new native woodland established since 2002 contributes to targets set within the NI Biodiversity Strategy.



In addition, new native woodland design and management plans should take account of the following:

- conservation objectives, including the control of invasive species, protection and enhancement of ground flora, increasing the amount and variety of deadwood, incorporating site-native understorey and minor native tree species, and developing a mixed age structure;
- priority woodland habitat in the locality - new native woodland within, adjacent to, or close to (usually around 2km) a designated woodland should consist of 100% site-native species consisting of, if possible, local provenance planting stock (see Appendix II);
- *Forests and Water Guidelines* - where biodiversity is the main objective low intensity establishment methods should be used and additional drainage should be avoided, except where necessary to manage discharges from pre-existing channels;
- other UK Forestry guidelines (in prep.) and associated guidance relevant to Northern Ireland, including *Creating New Native Woodlands* (Forestry Commission Bulletin 112).

Local Provenance

Local Provenance

Guidance

Planting trees grown from reproductive material (*i.e.* seed, or, in the case of poplars and willows, cuttings) collected from an appropriate source near the planting site - with the landowner's permission - is a means of conserving and maintaining local gene pools. Appropriate sources are likely to include sites designated by Environment and Heritage Service (EHS) as Natural Nature Reserve (NNR), Area of Special Scientific Interest (ASSI) or Special Area of Conservation (SAC), and from Sites of Local Nature Conservation Importance (SLNCI), Local Nature Reserves (LNR), Ancient Woodland Inventory (AWI) woodland, and woodland that has developed from natural colonisation adjacent to these sites. Consent from EHS is required prior to collecting seed from designated woodland.

In poor seed years or where there are only a few individual sources, care must be taken to ensure that seeds or cuttings are collected from a sufficient number of individual trees, in order to maintain genetic diversity.

Local provenance planting stock grown from reproductive material collected from sources within the province of Ulster should be preferred for new native woodland. Where no supply is available from the counties of Ulster, this may be extended to include, in order of decreasing preference, all-Ireland, West and South-west Scotland, North-west England, and North Wales.

Definition

Provenance is the location from which reproductive material used to produce planting stock was collected.

A native tree of local provenance is any individual of a population comprised of genetically similar individuals related by common descent and occupying a particular bio-geographic area to which it is likely to have become adapted, and that has not been introduced by humans.

-
- 🌿 Details of suppliers of native tree planting stock may be obtained from the Forest Service.
 - 🌿 Information in relation to sites designated by EHS is available from the website: ehsni.gov.uk. Further information and advice may be obtained from the Conservation, Designations and Protection Unit: cdp@doeni.gov.uk.
 - 🌿 SLNCIs are published in Area Plans on the Planning Service website: planningni.gov.uk.
 - 🌿 LNRs are designated by Local Authorities. Individual local authorities may be contacted for site locations and further information.
 - 🌿 Information in relation to AWI sites is available from the AWI website: backonthemap.org.uk.



Natural Colonisation & Regeneration

Natural Colonisation & Regeneration

Guidance

In terms of conserving local genetic distinctiveness and diversity, natural colonisation or regeneration of native species is likely to be more beneficial than planting. However, natural colonisation or regeneration initially depends on the nearby occurrence of suitable native seed sources. In practice it may be necessary to supplement natural colonisation or regeneration by planting, particularly on fertile sites, to avoid capture of the site by non-woody species.

Where new native woodland is to be established as part of a woodland or forest redesign plan, a reasonable period of time should be set to enable natural regeneration of native species to take place, normally around 5 years, before considering the need for planting.

Definition

Natural colonisation and regeneration are the processes by which woodland species become established from seeds dispersed naturally from local sources, on open ground and within a woodland or forest (including recently felled areas) respectively.



Appendix 1

Appendix 1

Characteristics of priority woodland in Northern Ireland



HAP type	Oakwood	Mixed ashwoods	Wet woodland	
Link to Habitats Directive Annex 1	Old sessile oakwoods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles.	<i>Tilio-Acerion</i> forests of slopes, screes and ravines.	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> .	Bog woodland.
Site characteristics	Moist, free-draining sites.	Ranging from steep limestone scarps and screes to more gentle slopes.	Including floodplains which are permanently waterlogged, river valleys, along streams and hillside flushes, and transition zones between open water and drier ground.	Occuring as a successional habitat on fens, mires and bogs.

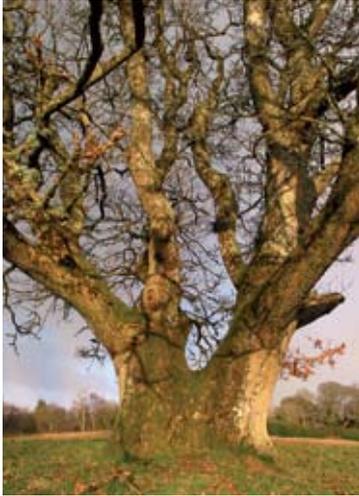
Soil characteristics	Ranging from base-poor brown earths to very thin highly acidic soils.	Base-rich soils of varying depth, and moderately free draining, or poorly drained acid soils with a flush of nutrients.	Wet mineral soils on base-rich clays to permanently wet nutrient rich peats.	Nutrient-poor peatlands.
Species recommended for planting (dominant species in bold)	Sessile oak, downy birch, pedunculate oak, silver birch, hazel, rowan.	Ash, hazel, rowan, oak spp., hawthorn, blackthorn, whitebeam, wild cherry.	Alder, willow spp., ash, downy birch.	Downy birch.
NVC type*	W11, W17	W9	W1, W2, W5, W6, W7	W4

*Rodwell, J.S. 1991. British Plant Communities. Vol 1. Woodland and Scrub. Cambridge University Press, Cambridge.



Appendix 11

Appendix 11



Use of Native Woodland Definitions and Guidance in Environmental and Forest Regulation

Conservation (Natural Habitats etc) (Northern Ireland) Regulations 1995 and Amendments (2004 & 2007)

Proposed afforestation projects within, adjacent to or near to Special Areas of Conservation (SACs) and Special Protection Area (SPAs) should comply with Native Woodland Definitions and Guidance. The Forest Service is required to consult with EHS prior to the approval of grant applications in relation to afforestation within or adjacent to SACs and SPAs. Afforestation projects within, adjacent to or near to SACs and SPAs may be subject to an appropriate assessment conducted either by EHS or by another statutory body in consultation with EHS.

Environment (Northern Ireland) Order 2002

Proposed afforestation projects within, adjacent to or near to woodland ASSIs should comply with Native Woodland Definitions and Guidance. The Forest Service is required to consult with EHS prior to the approval of grant applications in relation to afforestation within or adjacent to ASSIs.



Environment Impact Assessment (Forestry) Regulations (Northern Ireland) 2006

The Forest Service assesses afforestation projects in respect of the Environmental Impact Assessment (Forestry) Regulations prior to the approval of planting grant applications. Afforestation in, adjacent to or near to designated sites and areas with woodland features, ancient woodland, planted ancient woodland site (commonly referred to as PAWS) restoration projects, and other examples of priority woodland habitat should comply with Native Woodland Definitions and Guidance.

Forest Reproductive Material (FRM) Regulations (Northern Ireland) 2002

Certain native species are listed as controlled species in Schedule 1 of the FRM regulations, including alder, ash, sessile and pedunculate oak, downy and silver birch, aspen, wild cherry, black poplar and Scots pine.

The regulations require collectors of reproductive material (*i.e.* seed, or cuttings in the case of *Populus* spp.) of controlled species, either intended for sale or to produce young trees for sale, to apply for a Master Certificate describing the origin, region of provenance and genetic quality of the source. Suppliers of controlled species are required to provide purchasers with a document providing the same information.

- ❖ The origin of the reproductive material may be described as indigenous, non-indigenous or unknown. For practical purposes the origin may be described as indigenous if the reproductive material was collected from ancient woodland inventory sites or hedgerows shown on 1st or 2nd edition Ordnance Survey maps, or from solitary trees that have regenerated from these sites or hedgerows. ‘Non-indigenous’ is applicable to native species grown from reproductive material collected outside of Great Britain (GB) and the island of Ireland.
- ❖ Region of provenance is described as Northern Ireland.
- ❖ Genetic quality is described as source identified, selected, qualified or tested. In most cases the genetic quality will be described as ‘source identified’. Native species grown from material harvested from stands of trees registered as approved sources of basic material, in respect of the FRM regulations, should be described as ‘selected’.





Woodland Grant Scheme (WGS) and Farm Woodland Premium Scheme (FWPS)

New native woodland may be eligible for support either under WGS or FWPS. Proposals are required to conform with *The UK Forestry Standard* and *Forests and Water Guidelines*.

- 🌿 The rate of grant is reduced where more than 20% of the proposed woodland is planned as open space.
- 🌿 Average tree spacing in the area planned as woodland should not fall below the equivalent of 1100 stems/ha.
- 🌿 Closer average spacing is recommended where timber production is an objective.
- 🌿 Up to 10% of the overall stocking may be comprised of woody shrubs.



Amendments and additions to Environmental and Forestry Regulation, Policy and Guidance

Forest Service will provide updates on regulation, policy and guidance on its website: forestserviceni.gov.uk.

Appendix III

Appendix III

Glossary to Native Woodland Definitions and Guidance

Canopy cover	The area of tree crowns in a woodland projected onto the ground
Design plan	A description of the woodland within the landscape which includes tree species and open space
Dominant tree species	Tree species that will eventually dominate the upper canopy of the woodland
Gene pool	The range of genetic material within a local population
Habitat Action Plan (HAP)	A document describing a natural habitat, the pressures and threats the habitat is subject to, and actions by Government in partnership with others to address those pressures and threats
Minor species	Tree species that will eventually form a minor part of the upper canopy of the woodland
Native	Occurring naturally in the past without the influence of humans
National Vegetation Classification (NVC)	A system for classifying natural habitats in the UK based on vegetation
Natural colonisation	Germination of native tree seeds and development of seedlings into trees on open ground adjacent to a woodland, hedgerow or solitary tree
Natural regeneration	Germination of native tree seeds and development of seedlings into trees within a woodland or forest, including recently felled areas
Northern Ireland Biodiversity Strategy	The Government's strategy for protecting and enhancing biodiversity in Northern Ireland
Planted ancient woodland site	A planted non-native woodland on a site believed to have been under continuous woodland cover since before AD 1600
Planting prescription	Specifications for establishing woodland including establishment method, ground preparation, species and spacing
Priority habitat	A natural habitat identified in the Northern Ireland Biodiversity Strategy and which is subject to a Habitat Action Plan

Priority woodland	Woodland subject to a Habitat Action Plan
Provenance	The location from which seed is collected
Redesign plan	A vision of a woodland or forest which addresses the requirements of standards and guidelines that did not apply when it was first planned and established
Reproductive material	Seed, cuttings, or other material used for the propagation of trees
Seed stand	A group of trees of a particular species from which seed is harvested
Sub-species	A naturally occurring and distinctive local or regional type
UK Biodiversity Action Plan (UKBAP)	The UK Government's plan for protecting and enhancing biodiversity across the UK.
Understorey	Trees and shrubs of intermediate height occurring between the upper canopy of a woodland and ground level

Photographs and credits

- Front Cover** Bluebells. *Environment and Heritage Service*
Speckled Wood butterfly. *Ulster Wildlife Trust*
Alder. *Laurie Campbell*
Woodcock. *Ian Herbert*
Bird's Nest orchids, Castlecaldwell Forest. *Forest Service*
Morel. *Ulster Wildlife Trust*
- Page 4** Mature oak, Garvagh Forest. *Forest Service*
Rowan berries. *Conservation Volunteers Northern Ireland*
- Page 5** Hazel. *Conservation Volunteers Northern Ireland*
Wood anemone. *Woodland Trust*
- Page 7** Yew, Crom. *Mark Hamilton.*
Blackthorn, North Coast. *Conservation Volunteers Northern Ireland*
- Page 8** Bird cherry. *Conservation Volunteers Northern Ireland*
Scots pine, Tollymore Forest. *Forest Service*
- Page 9** Native woodland remnant, Ballintempo Forest. *Forest Service*
- Page 10** Parkland with deadwood. *Ulster Wildlife Trust*
- Page 12** Oak shoot. *Forest Service*
Dappled bluebells. *Ulster Wildlife Trust*
- Page 14** Oak bed, Clandeboye. *Conservation Volunteers Northern Ireland*

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- Page 15** Ash regeneration, Portglenone. *Darryl Ridge*
Oak seedling. *Stephen McCartney*
- Page 16** Atlantic Oakwood, Correl Glen SAC, Conagher Forest. *Forest Service*
Alder stools, Florencecourt Forest. *Forest Service*
- Page 17** Hazel coppice, Glenarm. *Ulster Wildlife Trust*
Downy birch regeneration, Aghadowey Forest. *Forest Service*
- Page 18** Pedunculate oak. *Conservation Volunteers Northern Ireland*
Cladagh Glen. *Conservation Volunteers Northern Ireland*
- Page 19** Wild cherry, Belvoir Park Forest. *Forest Service*
Hawthorn berries. *Conservation Volunteers Northern Ireland*
- Page 20** Spindle flowers. *Conservation Volunteers Northern Ireland*
Broadleaf. *Stephen Kind (Woodland Trust)*





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