European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC)

Fourth Report by the United Kingdom under Article 17

on the implementation of the Directive
from January 2013 to December 2018

Supporting documentation for the
conservation status assessment for the habitat:

H9180 - Tilio-Acerion forests of slopes, screes and ravines

NORTHERN IRELAND

IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this habitat, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this habitat is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was only relevant at UK-level (sections 10 Future prospects and 11 Conclusions).
- For technical reasons, the country-level future trends for Range, Area covered by habitat and Structure and functions are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

NATIONAL LEVEL

1. General information

1.1 Member State	**UK (Northern Ireland information only)**
1.2 Habitat code	**9180 - Tilio-Acerion forests of slopes, screes and ravines**

2. Maps

2.1 Year or period	2013-2018
2.3 Distribution map	Yes
2.3 Distribution map Method used	Complete survey or a statistically robust estimate
2.4 Additional maps	No

BIOGEOGRAPHICAL LEVEL

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs	**Atlantic (ATL)**
3.2 Sources of information	Cooper, A. & McCann, T. (2001). The Northern Ireland Countryside Survey 2000. Environment and Heritage Service, Belfast Cooper, A., McCann, T. and Rogers, D. (2009) Northern Ireland Countryside Survey 2007: Broad Habitat Change 1998-2007. Northern Ireland Environment Agency. Northern Ireland Environment Agency Research and Development Series No. 09/06. Belfast. 58 pp. McCann, T., Rogers, D. and Cooper, A. (2009) Northern Ireland Countryside Survey 2007: Field methods and technical manual. Northern Ireland Environment Agency. Northern Ireland Environment Agency, Research and Development Series No 09/07. Belfast. Murray, R., McCann, T. and Cooper, A. (1992). A Land Classification and Landscape Ecological Study of Northern Ireland. Department of the Environment NI and Department of Environmental Studies, University of Ulster, Coleraine. Rodwell, J.S. (1991). British Plant Communities. Volume 1, Woodlands. Cambridge: Cambridge University Press NIEA. Internal Condition Assessment Reports (various sites and years). Rodwell, J.S., Dring, J.C., Averis, A.B.V., Proctor, M.C.F., Malloch, A.J.C., Schaminee, J.H.J & Dargie, T.C.D. 1998. Review of Coverage of the National Vegetation Classification. Lancaster: Unit of Vegetation Science report to the Joint Nature Conservation Committee. Data on aerial Nitrogen deposition taken from Air Pollution Information System website - http://www.apis.ac.uk/ NIEA. Internal Survey Reports (various sites and years). Graham, T. (1975). Private Woodland Inventory of Northern Ireland. (1975). Forest Service, Belfast. Forest Service woodland register - data available online https://www.daera-ni.gov.uk/articles/forest-service-woodland-register McCracken, E. 1971. The Irish Woods Since Tudor Times: Their Distribution and Exploitation. Insititute of Irish Studies, Belfast. Rackham, O. 1995 Looking for Ancient Woodland in Ireland in Woods, Trees and Forests in Ireland, pp. 1-12. Pilcher, J.R. and Mac an tSaoir, S. S. (eds). Royal Irish Academy, Dublin. Rodwell, J. & Dring, J. 2001. European significance of British woodland types. English Nature Research Report No. 460 (Volumes 1-2). English Nature,

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Peterborough.

4. Range

4.1 Surface area (in km²)			
4.2 Short-term trend Period			
4.3 Short-term trend Direction	Stable (0)		
4.4 Short-term trend Magnitude	a) Minimum	b) Maximum	
4.5 Short-term trend Method used			
4.6 Long-term trend Period			
4.7 Long-term trend Direction			
4.8 Long-term trend Magnitude	a) Minimum	b) Maximum	
4.9 Long-term trend Method used			
4.10 Favourable reference range	a) Area (km²)		
	b) Operator		
	c) Unknown	No	
	d) Method		
4.11 Change and reason for change in surface area of range	No change		
	The change is mainly due to:		
4.12 Additional information			

5. Area covered by habitat

5.1 Year or period	2013-2018		
5.2 Surface area (in km²)	a) Minimum	b) Maximum	c) Best single value 3
5.3 Type of estimate	Best estimate		
5.4 Surface area Method used	Complete survey or a statistically robust estimate		
5.5 Short-term trend Period	2007-2018		
5.6 Short-term trend Direction	Stable (0)		
5.7 Short-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval
5.8 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data		
5.9 Long-term trend Period	1994-2018		
5.10 Long-term trend Direction	Stable (0)		
5.11 Long-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval
5.12 Long-term trend Method used	Based mainly on extrapolation from a limited amount of data		
5.13 Favourable reference area	a) Area (km²)		
	b) Operator		
	c) Unknown	No	
	d) Method		
5.14 Change and reason for change in surface area of range	No change		
	The change is mainly due to:		
5.15 Additional information			

6. Structure and functions

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6.1 Condition of habitat	a) Area in good condition (km²)	Minimum	0	Maximum	0
	b) Area in not-good condition (km²)	Minimum	1.5413	Maximum	1.5413
	c) Area where condition is not known (km²)	Minimum	1.4587	Maximum	1.4587
6.2 Condition of habitat Method used	Based mainly on extrapolation from a limited amount of data				
6.3 Short-term trend of habitat area in good condition Period	2007-2018				
6.4 Short-term trend of habitat area in good condition Direction	Stable (0)				
6.5 Short-term trend of habitat area in good condition Method used	Based mainly on extrapolation from a limited amount of data				
6.6 Typical species	Has the list of typical species changed in comparison to the previous reporting period?		No		
6.7 Typical species Method used					
6.8 Additional information					

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Agricultural activities generating air pollution (A27)	H
Waste management practices in agriculture (A24)	M
Other invasive alien species (other then species of Union concern) (I02)	H
Intensive grazing or overgrazing by livestock (A09)	M
Increases or changes in precipitation due to climate change (N03)	M
Temperature changes (e.g. rise of temperature & extremes) due to climate change (N01)	M
Forest management reducing old growth forests (B15)	M
Modification of hydrological flow (K04)	M
Conversion into agricultural land (excluding drainage and burning) (A01)	M

Threat	Ranking
Agricultural activities generating air pollution (A27)	H
Waste management practices in agriculture (A24)	M
Other invasive alien species (other then species of Union concern) (I02)	H
Intensive grazing or overgrazing by livestock (A09)	M
Increases or changes in precipitation due to climate change (N03)	H
Temperature changes (e.g. rise of temperature & extremes) due to climate change (N01)	H
Forest management reducing old growth forests (B15)	M

Modification of hydrological flow (K04)	M
Conversion into agricultural land (excluding drainage and burning) (A01)	M

7.2 Sources of information

7.3 Additional information

8. Conservation measures

8.1 Status of measures	a) Are measures needed?	Yes
	b) Indicate the status of measures	Measures identified and taken
8.2 Main purpose of the measures taken		Maintain the current range, population and/or habitat for the species
8.3 Location of the measures taken		Both inside and outside Natura 2000
8.4 Response to the measures		Medium-term results (within the next two reporting periods, 2019-2030)

8.5 List of main conservation measures

Management, control or eradication of other invasive alien species (CI03)
Implement climate change adaptation measures (CN02)
Reduce/eliminate air pollution from agricultural activities (CA12)
Adapt mowing, grazing and other equivalent agricultural activities (CA05)
Other measures related to agricultural practices (CA16)
Stop forest management and exploitation practices (CB06)
Reduce impact of multi-purpose hydrological changes (CJ02)
Prevent conversion of natural and semi-natural habitats, and habitats of species into agricultural land (CA01)

8.6 Additional information

9. Future prospects

9.1 Future prospects of parameters

a) Range

b) Area

c) Structure and functions

9.2 Additional information

10. Conclusions

10.1. Range

10.2. Area

10.3. Specific structure and functions (incl. typical species)

10.4. Future prospects

10.5 Overall assessment of Conservation Status

10.6 Overall trend in Conservation Status

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10.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status No change The change is mainly due to: b) Overall trend in conservation status No change The change is mainly due to:
10.8 Additional information	

11. Natura 2000 (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (in km² in biogeographical/ marine region)	a) Minimum b) Maximum c) Best single value 1.5413
11.2 Type of estimate	Best estimate
11.3 Surface area of the habitat type inside the network Method used	Complete survey or a statistically robust estimate
11.4 Short-term trend of habitat area in good condition within the network Direction	Stable (0)
11.5 Short-term trend of habitat area in good condition within network Method used	Complete survey or a statistically robust estimate
11.6 Additional information	

12. Complementary information

12.1 Justification of % thresholds for trends	
12.2 Other relevant information	

Distribution Map

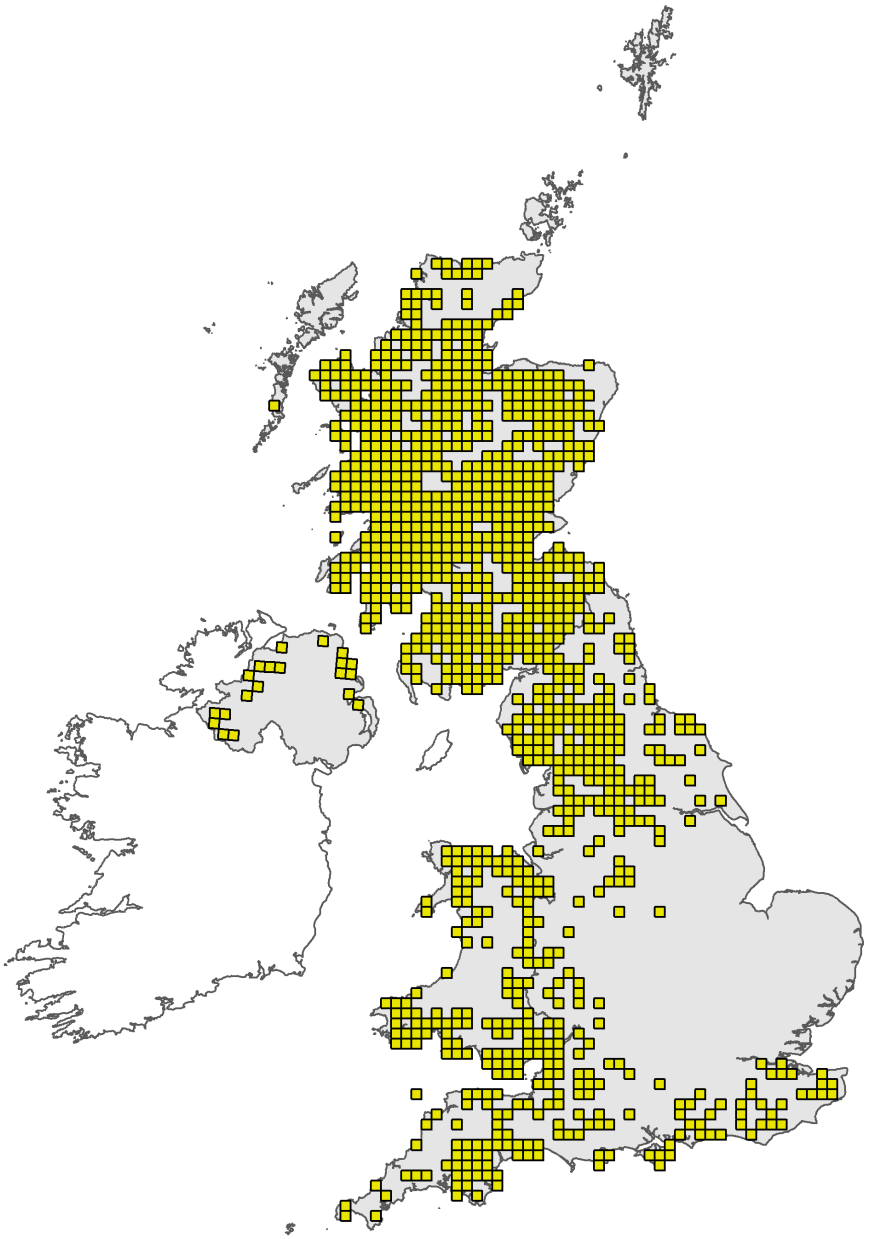

Figure 1: UK distribution map for H9180 - Tilio-Acerion forests of slopes, screes and ravines. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available habitat records which are considered to be representative of the distribution within the current reporting period. For further details see the 2019 Article17 UK Approach document.

Range Map

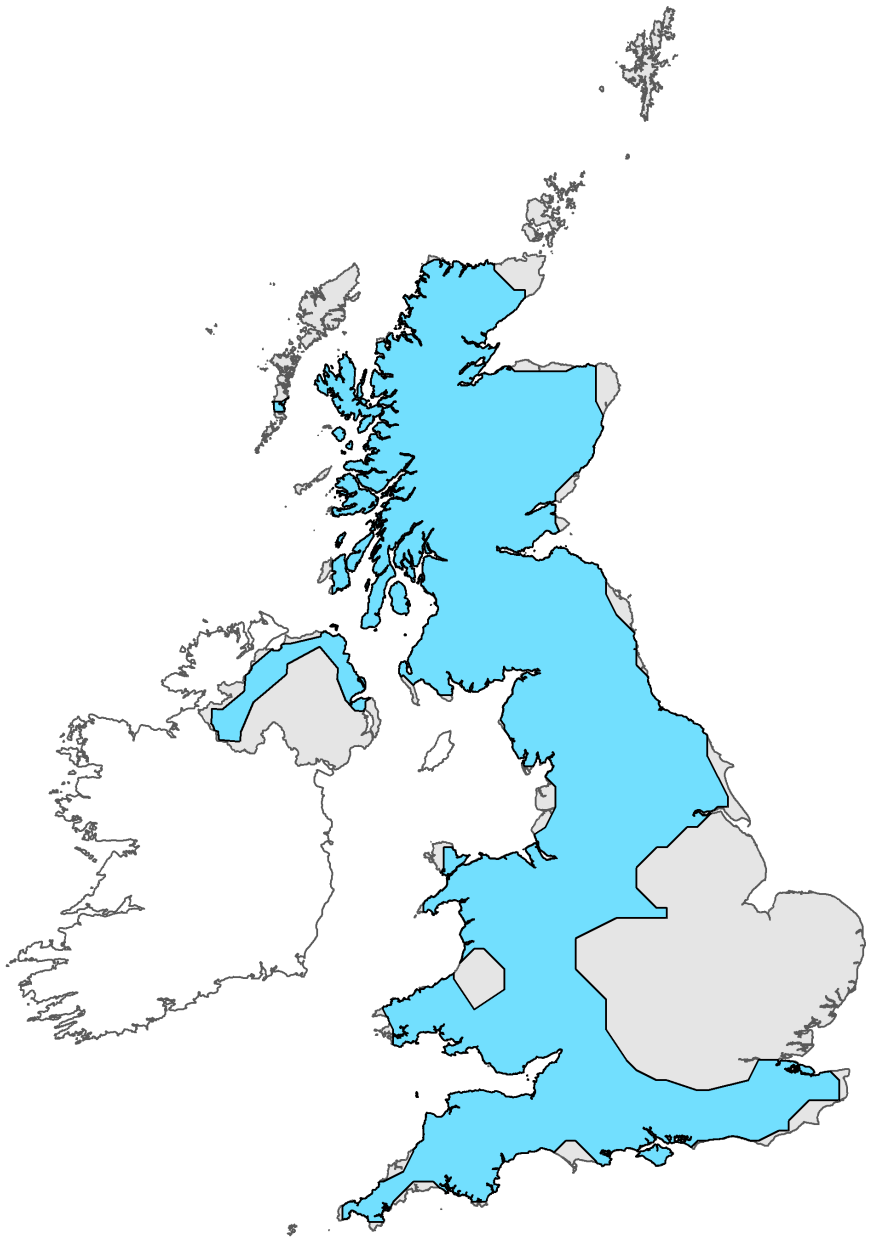

Figure 2: UK range map for H9180 - Tilio-Acerion forests of slopes, screes and ravines. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this habitat was 25km. For further details see the 2019 Article 17 UK Approach document.

Explanatory Notes

Habitat code: 9180

Field label	Note
2.2 Distribution map	This is a priority habitat type that is uncommon in the UK. Tilio-Acerion ravine forests are woods of ash Fraxinus excelsior, wych elm Ulmus glabra, lime (mainly small-leaved lime Tilia cordata but more rarely large-leaved lime Tilia platyphyllos). Introduced sycamore Acer pseudoplatanus is often present. The habitat type typically occurs on coarse scree, steep rocky slopes and in ravines, particularly on calcareous substrates on cliffs, screes and gorges. Often the habitat type occurs as a series of scattered patches, grading into other types of woodland on slopes above and on flat valley floors below. Transitions to scrub, grassland and other woodland habitats are important features of several selected sites. The habitat is ecologically variable. As the Tilio-Acerion has its centre of distribution on the continent, some of the species that are abundant on the continent are much more scattered in UK sites. From site to site the dominant tree species in the canopy vary. To the north and west, ash and wych elm assume increasing importance in the canopy. Variations in slope, aspect and nature of the substrate add to the diversity. The main NVC types are the 'western' sub-communities d - g of the W8 Fraxinus excelsior-Acer campestre-Mercurialis perennis woodland (and the north-western equivalent W9 Fraxinus excelsior-Sorbus aucuparia-Mercurialis perennis woodland). The associated ground flora can be very varied. Ferns and basophilous species are usually abundant - often there are fern banks (particularly Phyllitis scolopendrium, Polystichum setiferum and Dryopteris spp.); stands of Allium ursinum in the moister zones; Mercurialis perennis and Circaea spp. on drier but still base-rich soils; Geum urbanum, and natural 'disturbance communities comprising Urtica dioica, Geranium robertianum and Galium aparine associated with scree and cliff bases. A wide range of other basophilous herbs and grasses may occur within these stands. Upland Mixed Ashwoods are the main woodland type in NI on base-rich soils, particularly the Tertiary Basalts of County Antrim and the Carboniferous Limestones of County Fermanagh, with more occasional occurrences in the Sperrins, and Counties Down and Armagh. The type ranges from woods on steep limestone scarps and screes, to those on more gentle slopes with a deeper, but still base-rich, soil cover. The NVC type represented in NI is the W9 Fraxinus excelsior - Sorbus aucuparia - Mercurialis perennis woodland, which is characteristic of moderately free-draining base-rich soils in north-western Britain. In NI, the habitat tends to be dominated by a canopy of Ash Fraxinus excelsior and Hazel Corylus avellana, often with frequent Goat Willow Salix caprea and a ground flora rich in spring-flowering herbs such as Wood Anemone Anemone nemorosa, Bluebell Hyacinthoides non-scripta, Primrose Primula vulgaris and Wild Garlic Allium ursinum. Dog's Mercury Mercurialis perennis does not occur as a native in NI and in some stands, especially in County Antrim where the canopy is dominated by Hazel Corylus avellana, all of the \character\ species may be absent. Even here, however, the community can be readily assigned to the NVC W9 type. W9 is broadly comparable to the \upland mixed ashwoods\ HAP type. However, not all of this woodland type is strictly referable to the Annex 1 type (i.e. not all is in ravine-type situations) - H9180 is therefore a much smaller subset of the Upland Mixed Ashwoods HAP type.
2.3 Distribution map; Method used	Map based upon fieldwork by NIEA staff at SACs, ASSIs and other locations, in addition to data derived from Forest Service. During the reporting period, NIEA staff have generally visited SACs and ASSIs, with coverage of the habitat in the wider countryside more patchy.

Habitat code: 9180 Region code: ATL

Field label	Note

10.6 Overal trend in Conservation Status	see comments under 9.1; given the fact that N deposition is just below critical thresholds for most of the habitat, and that favourable management is in place or proposed, assessment is Stable; however, the impacts of Ash dieback on the habitat will need to be closely monitored.
4.1 Surface area	Although survey work has covered the main areas of for Tilio-Acerion in NI, the complete resource has not been surveyed. However, there is no reason to believe that there has been a loss in range; certainly no loss in range has been recorded in the habitat on SACs or ASSIs since the condition assessment programme was introduced in 2002. Furthermore, the occurrence of this woodland is naturally constrained by the availability of suitable ravine sites.
4.5 Short term trend; Method used	Based upon regular condition monitoring of protected Tilio-Acerion sites. These cover the main sites for the habitat in NI - i.e. West Fermanagh Scarplands SAC and Marlbank ASSI in Co Fermanagh.
5.2 Surface area	There are no precise data on the extent of H9180 in the UK or NI. Although the habitat occurs within the Priority Habitat Mixed Ashwoods (Upland Mixed Ashwoods for GB), this is a broader woodland type than H9180. Even for Mixed Ashwoods, there are no precise data on their total extent in the UK. The NI Habitat Action Plan states \ ..... a crude estimate places the total area at 67,500 ha (JNCC, 2001). It is estimated that mixed ashwoods occupy a minimum of 3,430 ha in Northern Ireland, with an estimated 3,300 ha in private ownership and 130 ha in public ownership (Environment and Heritage Service (EHS) unpublished estimates, based upon Graham, 1975). The figure of 3,430 ha in Northern Ireland includes all mixed ashwoods, irrespective of age and condition. This estimate includes relatively recent mixed ashwoods (developed after 1900 - Graham, 1975), as well as more mature woodland. It is likely that only a proportion of mixed ashwoods in Northern Ireland could be described as mature (i.e. less than 1,000 ha dates from before 1900). In addition some of these older mixed ashwoods may be dominated by non-native tree species (such as Sycamore or Beech), but retain a long-established native mixed ashwood ground flora.\ So the total area of H9180 is considerably less than that for the BAP upland mixed ashwood priority habitat, because botanically similar communities to H9180 occur more widely, on flatter ground with deeper soils. The NI Countryside Survey estimated 2,347 ha for the habitat. This was a statistical calculation based on NI Countryside Survey data (2007). The Standard Error of the estimate was 7.72 km2. This estimate attempted to take slope angle into account: - a series of Triangulated Irregular Networks (TINs) were produced for each sample square. The TINs were built from an enhanced Ordnance Survey (OS) Digital Terrain Model (DTM) consisting of break-lines and spot heights with a higher density of data in the more complex areas. The accuracy of the DTM model was +-1 m. Individual TINs were created extending to 500 m outside the survey sample squares to avoid distortion at the edges. The 3D Analyst extension within Arc-GIS 9.3 was used to create the TINs. A slope value was calculated for each TIN. The slope values of each TIN were converted raster (cell size 1m2) to allow zonal statistics to be summarized for each polygon producing a mean slope for each woodland parcel Parcels with hazel (COA) cover value =4 (11 - 24%), or ash (FRE) cover value =4 in either small trees (<5m) or in large trees (>5m), and with a mean slope of at least 20 degrees (=19.5) were flagged as potential H9180 habitat. However, again this is likely to be an overestimate, as it is likely to include relatively recent mixed ashwoods on the one hand, and on the other, does not fully take into account \ravine\ situations. Hence, we propose to continue to use the figure of 300 ha of H9180 for NI, as published in the 2007 Report, until more detailed analysis can be carried out.

5.6 Short term trend; Direction	Short-term trend believed to be stable; during the period there was no evidence of loss from any SACs or ASSIs designated for the feature (Mixed Ashwoods feature for ASSIs); most (if not all) relevant sites were visited. NI Countryside Survey suggests that woodland cover in NI increased in the period between 1998 and 2007. Using results from the protected sites network, and in the absence of more recent data from the wider countryside, we are extrapolating that the trend identified between 1998 and 2007 has continued, and that loss of Tilio-Acerion ravine woods over that period are extremely unlikely.
5.8 Short term trend; Method used	Trend based upon recent survey of protected sites and NI Countryside Survey data for the period 1998 to 2007. Assumed that the trend has continued into the current reporting period. The NICS was based on field mapping within 288 25ha sample squares.
5.10 Long term trend; Direction	The Northern Ireland Countryside Survey (NICS), funded by EHS, is a sample survey of Northern Ireland vegetation communities used to estimate the extent and distribution of broad habitats such as broad-leaved, semi-natural woodland, including mixed ashwoods (of which H9180 is a subset). Repeat surveys are used to assess land-use change. The NICS 2000 (Cooper & McCann, 2001) repeated the survey of 1988 with a second survey in 1998. NICS (2000) indicates a 9% increase in the extent of woodland and scrub between 1988 and 1998. This estimated increase of 11,211 ha is a result of tree planting, both broad-leaved and coniferous, and natural regeneration. Within this broad habitat, broad-leaved semi-natural woodland (which includes both oakwood and mixed ashwoods, in addition to some wet woodlands) increased by 1,249 ha and now covers 1.7% (23,027 ha) of Northern Ireland (Cooper et al., 2002). This trend has accelerated, with an estimated increase of 28% in Broadleaved Mixed and Yew woodland between 1998 and 2007. H9180 is very small subset of this broad habitat, and it is not possible to provide a definitive estimate of long-term trend in area. However, given the overall increase in woodland during the period, it is likely that the area of H9180 has remained stable since 1988.
6.1 Condition of habitat	Recent condition assessment data for the 2 SACs (West Fermanagh Scarplands and Banaher Glen) that contain Tilio-Acerion as a selection feature show that the habitat is in unfavourable condition. Apart from the condition of the habitat on ASSIs (e.g. Marlbank ASSI, which as not yet been fully assessed), the condition of the habitat in the wider countryside is unknown. However, expert opinion would sugegst that it is likely to be unfavourable as well.
6.2 Condition of habitat; Method used	Condition has been largely assessed from data taken from the most recent condition assessment on SACs and ASSIs that contain Tilio-Acerion. However, a significant part of the resource lies outside the designated site network. Extrapolating the evidence from the protected sites network to the wider resource of Tilio-Acerion suggests that a high proportion of the overall resource is likely to be in unfavourable condition.

7.1 Characterisation of pressures/ threats	Condition assessment data for SACs indicate that the habitat is in unfavourable condition; data from SACs and ASSIs that contain woodland show that all woodland types are experiencing similar threats and pressures. Over-grazing and browsing by domestic livestock, feral goats and increasingly in NI, deer - leads to impoverishment of the ground flora, can inhibit regeneration, and may alter the woodland structure, with impacts on many components of the woodland flora and fauna. Invasive species - such as sycamore and beech - change the composition of the woodland canopy and may have an impact on ground flora as well. Invasive alien species in the shrub and ground flora layers - such as cherry laurel Prunus laurocerasus, salmonberry Rubus spectabilis, Japanese knotweed Fallopia japonica, and snowberry Symphoricarpos albus - cause changes in the composition of the woodland and decreased diversity of field and ground layers. Localised dumping of building rubble, agricultural and domestic waste has occurred in some woodlands. Unsympathetic forestry practices have impacted on tilio-acerian ashwood sites. This includes planting of inappropriate broadleaved species or conifers and methods of working and felling rates that do not yet reflect published guidelines. Many semi-natural ashwoods were replaced with planted conifers during the twentieth century, resulting in loss of native trees and associated wildlife. Some effort has already been made to restore such stands. In some case, cessation of traditional management practices, notably coppicing, is a problem in tilio-acerian ashwoods because this results in changes to the environmental and structural conditions and the availability of longstanding habitats, such as clearings and glades. With improved management guidelines and better appreciation and promotion of the importance and appropriate treatment of semi-natural woodland, the threat from unsympathetic management will continue to diminish. The next ten years provide considerable opportunities to restore damaged stands, particularly those planted with conifers during the 20th century. Activities and grant-aid to encourage restoration and appropriate management of oakwoods have increased. The next ten years should result in further improvements, though it will take longer for the vegetation an associated wildlife to respond positively. Plant Pathogens - since its arrival in Britain in the early 1970s, Dutch elm disease has changed the structure and composition of many H9180 ravine ashwoods (e.g. Peterken and Mountford 1998). More recently, Ash Dieback Chalara fraxinea, which has caused widespread damage to ash tree populations in continental Europe, has been introduced to Britain and Ireland. Chalara is particularly destructive of young ash plants, killing them within one growing season of symptoms becoming visible. Older trees can survive initial attacks, but tend to succumb eventually after several seasons of infection. This is likely to have a very severe impact on the composition of the Tilio-Acerion woods, and its impacts could be even more severe in NI than elsewhere, as there are fewer canopy species present here to replace dead and dying Ash. It is likely that this, and other potential pathogens, may become even more of a threat in the future with climate change. NOTE - This should be reported under IO5 - plant and animal diseases, pathogens and pests. Human induced changes in hydraulic conditions is also an important pressure that takes several forms: (i) lowering of water-tables through drainage or water abstraction, which results in a transition to drier woodland types; (ii) Canalisation of river courses for the production of hydro-electricity; (iii) flood prevention measures, river control and canalisation, which leads to a loss of dynamic disturbancesuccession systems and invertebrate communities, and possible reductions in the extent of individual sites. Climate change will inevitably have some effects on the habitat, through changing patterns of rainfall. It is difficult to predict what the long-term effects of this will be if, as current projections suggest, there are prolonged periods of drought. Air pollution - the habitat is sensitive to aerial Nitrogen deposition, with a critical load range listed in the APIS website as 15-20 kg N /ha/yr. West Fermanagh Scarplands SAC is just on the lower threshold of this, with a predicted annual rate of 14.8 kg/N/ha/yr (average value), while Banagher Glen SAC exceeds the upper threshold with a predicted annual rate of 24.7 kg/N/ha/yr (average value). Marlbank ASSI, which has a significant amount of the habitat resource, has an

	estimated maximum value of 20.16 kg/N/ha/yr, so like West Fermanagh Scarplands the average value is likley to be around the lower critical threshold. Fragmentation and isolation are likely to remain as significant threats to the conservation of H9180 Tilio-Acerion forests of slopes, screes and ravines, though expansion and restoration of the habitat will help reduce their impact (AO1).
7.2 Sources of information	Threats and pressures assessed from the most recent Common Standards Monitoring of the habitat at protected sites (SACs and ASSIs), in addition to data from the NI Countryside Survey and expert judgement to assess pressures in the wider countryside. Threats based upon current pressures and expert judgement on future trends.
8.1 Status of measures	Recent monitoring shows that the habitat is in unfavourable condition. However, management plans for some of the sites which contain the habitat are being prepared, and it is likely that measures will be put in place through several delivery mechanisms - e. g. direct management intervention on those woods that NIEA manages (such as Hanging Rock Nature Reserve in Fermanagh and Banagher Glen Nature Reserve in Co Londonderry), the use of NIEA's Environment Fund and Management of Special Sites Scheme (MOSS) to encourage proactive management on other sites, and the Environmental Farming Scheme (EFS) administered by DAERA.
8.2 Main purpose of the measures taken	Measures aimed at reducing damaging impacts from current pressures and future threats. The habitat is limited in its extent and geographical distribution in NI. Hence this is reported as Maintain the structure and functions, including the status of typical species (related to 'Specific structure and functions').
8.3 Location of the measures taken	Management measures have been taken at a number of woodland sites containing the habitat (e.g. control of invasive alien species at Hanging Rock Nature Reserve in Co Fermanagh (part of the Marlbank ASSI). In addition, Rural Development Plan (RDP) funds are being used to develop Conservation Management Plans at other SACs that contain Tilio-Acerion woodlands. Several areas of Tilio-Acerion woodland across NI - both within designated sites and outside - have been, or are likely to be, entered into the Environment Farming Scheme (EFS), which aims to implement sympathetic management.
9.1 Future prospects of parameters	Although the extent of the habitat is stable, and positive management measures are in place on designated sites, these potential improvements must be offset against the potential impacts of climate change, and the threat posed by Ash die-back. In addition, atmospheric Nitrogen deposition is close to critical thresholds on some of the major sites for the habitat. Hence an assessment for Structure and Function Future Prospects of Negative - slight/moderate deterioration.
10.1 Range	In NI, although there have been huge historical woodland losses (as in the rest of Britain and Ireland) - generally to felling and conversion to agriculture - it is not believed that these have had any impact on the range of the habitat in the recent past. It is naturally constrained to coarse scree, steep rocky slopes and in ravines, particularly on calcareous substrates on cliffs, screes and gorges. Available evidence from survey and monitoring work, and aerial photo coverage suggests that the range has remained stable since 1988 and therefore assessed as Favourable.
10.2 Area	Despite large historical losses in all woodland types, it is likely that the area of Tilio-Acerion ravine woodland in NI has not declined in extent since the Habitats Directive was adopted. The occurrence of this woodland is naturally constrained by the availability of suitable ravine sites, and we have not recorded any decline in extent within the protected sites network. Furthermore, data from the NI Countryside Survey suggest that the extent of woodland in NI has increased over this time period. In addition, as noted in 4.1. above, much of the potentially suitable ground for the habitat is now occupied by open habitats, e.g. limestone grassland, limestone pavement, boulder scree and tall herb, that are themselves of high conservation value. Any significant spread of ash woodland here could conflict with other conservation priorities. Hence the area is assessed as Favourable.

10.3 Specific structure and functions	The resource is reported as not good for structure and function. Within the SAC network, a reasonable proportion is improving with management intervention. However, around half the resource is outside the SAC network and is likely to be in worse condition. The threat of Chalara fraxinea (Ash Dieback) will have a significant impact on the structure and function of Tilio-acerian forests. Hence an Unfavourable Bad assessment.
10.4 Future prospects	Despite some positive developments within the protected sites network as a result of conservation measures both already in place and planned for the future, the structure and function of the habitat is generally bad. The confirmation of Chalara fraxinea (Ash Dieback) in Mixed Ashwoods in West Fermanagh will have far reaching impacts on Tilio -Acerion woodlands. Future prospects are also uncertain in the light of potential impacts from climate change, but the added potential impact of atmospheric Nitrogen deposition make this attribute Unfavourable Bad
10.5 Overall assessment of Conservation Status	Range and Extent are assessed as Favourable; . Structure and function is bad. Future prospects are bad with confirmation of Chalara fraxinea (Ash Dieback) and the impacts of climate change currently unpredictable. Atmospheric Nitrogen deposition is also a major threat. Hence an overall Unfavourable bad assessment.
11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network	There are 2 SACs for Tilio-Acerion woodland in NI (West Fermanagh Scarplands and Banagher Glen). These cover around 150 ha of the habitat.
11.3 Surface area of the habitat type inside the network; Method used	Area estimates for SACs have been refined by field survey. CSM of SACs is undertaken on a regular basis and no recent loss in extent has been recorded.
11.4 Short term trend of habitat area in good condition within the network; Direction	The assessment of stable is based upon recent condition assessment data. Although the majority of the habitat in the SAC network has been reported as unfavourable, a significant amount of the habitat in SACs is in favourable management, or is likely to be in the near future.
11.5 Short term trend of habitat area in good condition within the network; Method used	Assessment based upon recent condition assessment data. Note that a significant amount of the habitat in SACs is in unfavourable status, but management measures to tackle some of the pressures are in place in some individual woods.