

## G2.6 *Ilex aquifolium* woodland

### Summary

This is a woodland habitat defined on the sole (and ecologically questionable) basis of dominance by *Ilex aquifolium* without other co-dominant trees. Occurring in scattered localities across temperate Europe and in Mediterranean mountains, it is usually obviously a relic or anthropogenic derivative of some other woodland type. *Ilex* thrives in mild climates and readily regenerates.

### Synthesis

The habitat is Least concern (LC) due to its stable to increasing area and increasing range. Quality indicators are not available for this *Ilex* dominated forest type.

Overall Category & Criteria			
EU 28		EU 28+	
Red List Category	Red List Criteria	Red List Category	Red List Criteria
Least Concern	-	Least Concern	-

### Sub-habitat types that may require further examination

No sub-habitats have been distinguished for further assessment.

### Habitat Type

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#### Code and name

G2.6 *Ilex aquifolium* woodland



*Ilex aquifolium* dominance in Natura 2000 site Norgerholt, The Netherlands (Photo: Rienk-Jan Bijlsma)

#### Habitat description

This is a woodland habitat defined on the sole (and ecologically questionable) basis of dominance by arborescent individuals of *Ilex aquifolium* without other co-dominant trees. Originally recognised as occurring in the supra-Mediterranean belt where stands occur in Sardinia and Corsica and in Atlantic mountains of northwestern Spain, it was there considered as mostly a facies of relict G3.9 *Taxus baccata* woodland. Other scattered occurrences exist in the nemoral zone of western Europe, in the UK for example, where they are probably facies of G1.6 *Fagus* woodland or G1.8 acidophilous *Quercus* woodland. *Ilex* was long exploited as a winter fodder for stock and this may account for its local abundance in landscapes where pasturing was combined with silviculture. Global warming contributes to its current

successful colonization of a variety of forest types, more northern and eastern (suboceanic) in distribution than before.

Indicators of good quality:

- The dominance of *Ilex aquifolium* (whatever its origin) remains the key indicator of quality here
- Survival of the associated flora is inherited from the original woodland from which this habitat was derived

Characteristic species:

Tree layer: *Ilex aquifolium* dominant, *Fagus sylvatica*, *Quercus petraea* agg., *Fraxinus excelsior*; Shrub layer: *Sorbus aucuparia*, *Carpinus betulus*, *Crataegus monogyna*, *Corylus avellana*, *Prunus spinosa*, *Hedera helix*; Herb layer: *Pteridium aquilinum*, *Lonicera periclymenum*, *Deschampsia flexuosa*, *Vaccinium myrtillus*; Moss layer: *Polytrichum formosum*, *Dicranum scoparium*, *Mnium hornum*.

### **Classification**

This habitat may be equivalent to, or broader than, or narrower than the habitats or ecosystems in the following typologies.

EUNIS:

G2.6 *Ilex aquifolium* Woods

EuroVeg checklist:

*Fagion sylvaticae* Luquet 1926

*Fraxino orni-Quercion ilicis* Biondi et al. ex Biondi, Casavecchia et Gigante 2013

*Quercion roboris* Malcuit 1929

*Luzulo-Fagion sylvaticae* Lohmeyer et Tx. in Tx. 1954

Annex I types:

9380 Forests of *Ilex aquifolium*

Emerald:

G2 Broadleaved evergreen woodland

MAES-2:

Woodland and forest

IUCN:

1.4 Temperate Forest

EFT:

9.5 Other sclerophyllous forest

**Does the habitat type present an outstanding example of typical characteristics of one or more biogeographic regions?**

No

Justification

The habitat occurs sporadically throughout different regions, mainly as a result of specific historical land-use.

## Geographic occurrence and trends

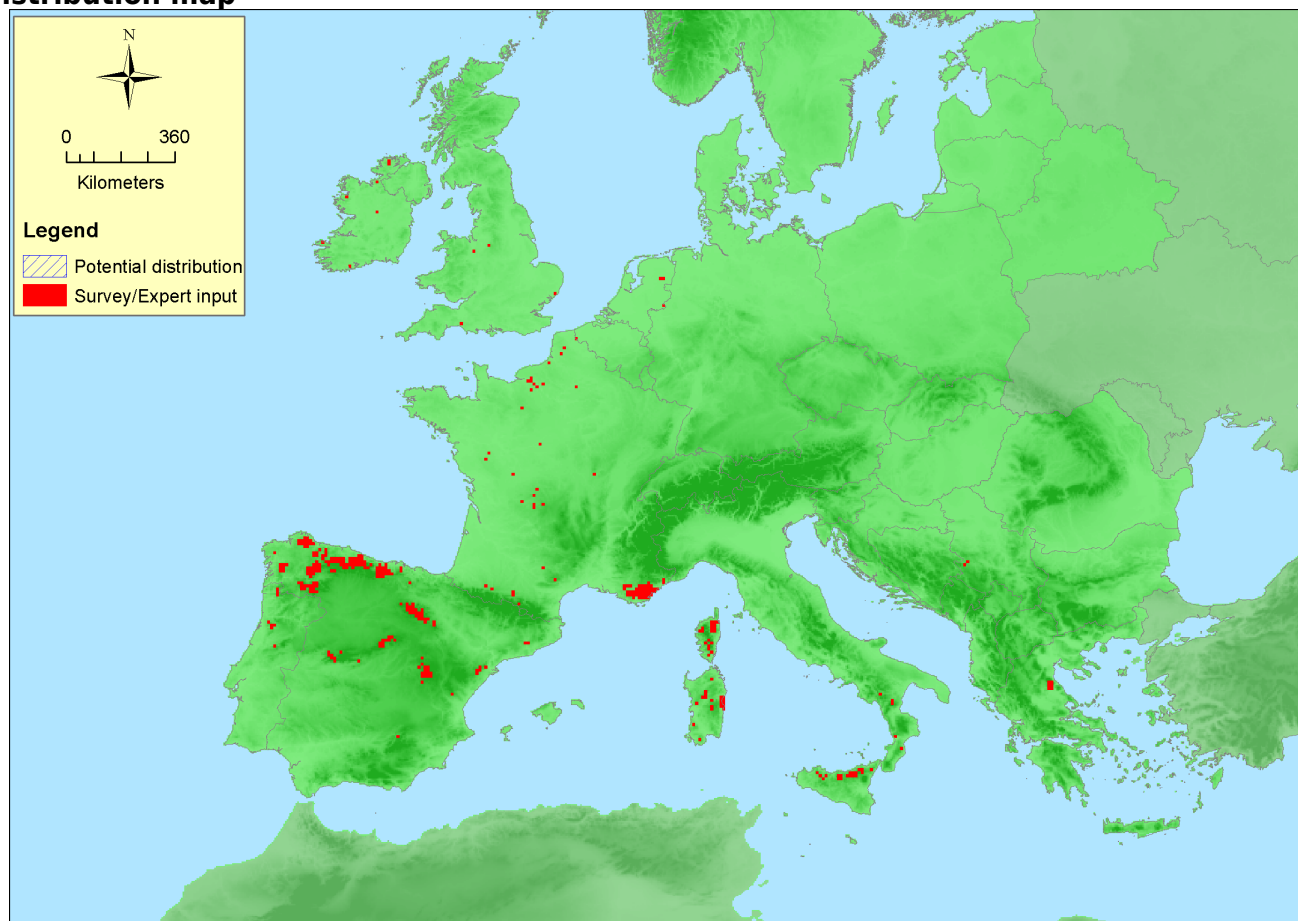
EU 28	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
<i>France</i>	Corsica: Present France mainland: Present	17 Km <sup>2</sup>	Stable	Stable
<i>Ireland</i>	Present	1 Km <sup>2</sup>	Unknown	Unknown
<i>Italy</i>	Italy mainland: Present Sicily: Present	19 Km <sup>2</sup>	Stable	Decreasing
<i>Netherlands</i>	Present	1 Km <sup>2</sup>	Increasing	Stable
<i>Portugal</i>	Portugal mainland: Present	7 Km <sup>2</sup>	Increasing	Unknown
<i>Spain</i>	Spain mainland: Present	31 Km <sup>2</sup>	Stable	Stable
<i>UK</i>	Northern Island: Present United Kingdom: Present	25 Km <sup>2</sup>	Stable	Increasing

EU 28 +	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
<i>Switzerland</i>	Present	Km <sup>2</sup>	Stable	Stable

### Extent of Occurrence, Area of Occupancy and habitat area

	Extent of Occurrence (EOO)	Area of Occupancy (AOO)	Current estimated Total Area	Comment
<i>EU 28</i>	3326400 Km <sup>2</sup>	369	101 Km <sup>2</sup>	
<i>EU 28+</i>	3396800 Km <sup>2</sup>	371	101 Km <sup>2</sup>	

### Distribution map



The map is likely to be incomplete in detailed distribution, but provides a good overview of the range. Data

sources: Art17, EVA.

## How much of the current distribution of the habitat type lies within the EU 28?

>95%; a very low area occurs in Switzerland

### Trends in quantity

The atlantic *Ilex aquifolium* survived the Little Ice Age in sheltered conditions including high forests in the Atlantic regions. It disappeared from coppice woodlands. Due to global warming holly is now a fast and successful colonizer of a variety of dry and moist forest types, often starting as a garden escape. The trend in quantity is positive.

- Average current trend in quantity (extent)

EU 28: Increasing

EU 28+: Increasing

- Does the habitat type have a small natural range following regression?

No

*Justification*

The range is large.

- Does the habitat have a small natural range by reason of its intrinsically restricted area?

Yes

*Justification*

In most sites the habitat occupies small sites, as it forms facies within other forest types in places where *Ilex* has profited from former land use.

### Trends in quality

The forest type is defined by *Ilex*-dominance only, which makes its quality hard to define.

- Average current trend in quality

EU 28: Stable

EU 28+: Stable

## Pressures and threats

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In the temperate zone *Ilex* dominance increases due to global warming (mild winters) and rapid recolonisation of several woodland types from gardens. In the Mediterranean global warming (summer droughts) has probably a negative impact on *Ilex* woodland. Generally, *Ilex* is a very tough species resistant to severe browsing, burning and cutting and is easily dispersed. There are no general pressures or threats.

### List of pressures and threats

#### No threats or pressures

No threats or pressures

## Conservation and management

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This forest type does not require any management. Generally *Ilex*-dominance occurs in mosaic with other forest types from which it derived.

### List of conservation and management needs

## No measures

No measures needed for the conservation of the habitat/species

## Conservation status

Annex 1:

9380 ATL U1, MED U2

## When severely damaged, does the habitat retain the capacity to recover its typical character and functionality?

*Ilex* is a very tough species and the forest type can withstand pressures such as high grazing and coppicing. It (re)colonizes quickly and can reach dominance after about 50 year, depending on seed sources.

## Effort required

50+ years
Naturally

## Red List Assessment

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### Criterion A: Reduction in quantity

Criterion A	A1	A2a	A2b	A3
EU 28	0 %	unknown %	unknown %	unknown %
EU 28+	0 %	unknown %	unknown %	unknown %

No quantitative data available but most reports point to a stable or increasing area. Only for Sardinia and Sicily a stable/decreasing area is reported.

### Criterion B: Restricted geographic distribution

Criterion B	B1				B2				B3
	EOO	a	b	c	AOO	a	b	c	
EU 28	>50000 Km <sup>2</sup>	No	No	No	>50	No	No	No	No
EU 28+	>50000 Km <sup>2</sup>	No	No	No	>50	No	No	No	No

Although restricted localities occur most of them must be considered as pockets of *Ilex*-dominance within other forest types where *Ilex* normally occurs as a subordinate species. The EOO, AOO and number of locations are too high to meet B criteria thresholds.

### Criterion C and D: Reduction in abiotic and/or biotic quality

Criteria C/D	C/D1		C/D2		C/D3	
	Extent affected	Relative severity	Extent affected	Relative severity	Extent affected	Relative severity
EU 28	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %
EU 28+	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %

Criterion C	C1		C2		C3	
	Extent affected	Relative severity	Extent affected	Relative severity	Extent affected	Relative severity
EU 28	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %
EU 28+	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %

Criterion D	D1		D2		D3	
	Extent affected	Relative severity	Extent affected	Relative severity	Extent affected	Relative severity
EU 28	unknown %	unknown%	unknown %	unknown%	unknown %	unknown%
EU 28+	unknown %	unknown%	unknown %	unknown%	unknown %	unknown%

Quality is ill-defined for this forest type. No quantitative data are available to assess quality trends.

### Criterion E: Quantitative analysis to evaluate risk of habitat collapse

Criterion E	Probability of collapse
EU 28	unknown
EU 28+	unknown

There is no quantitative analysis available that estimates the probability of collapse of this habitat type.

### Overall assessment "Balance sheet" for EU 28 and EU 28+

	A1	A2a	A2b	A3	B1	B2	B3	C/D1	C/D2	C/D3	C1	C2	C3	D1	D2	D3	E
EU28	LC	DD	DD	DD	LC	LC	DD	LC	DD	DD	DD	DD	DD	DD	DD	DD	DD
EU28+	LC	DD	DD	DD	LC	LC	DD	LC	DD	DD	DD	DD	DD	DD	DD	DD	DD

Overall Category & Criteria			
EU 28		EU 28+	
Red List Category	Red List Criteria	Red List Category	Red List Criteria
Least Concern	-	Least Concern	-

### Confidence in the assessment

High (mainly based on quantitative data sources and/or scientific literature)

### Assessors

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### Contributors

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### Reviewers

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**References**

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