

Taxus baccata woods of the British Isles (91J0) – Ireland



Photograph: Marco Schmidt (Wikimedia Commons)

Conservation status	IE: U2 (+)
Protection status	HD: Annex I
Area (2007-12)	EU: 13.8 km ² IE: 0.83 km ²
MS with genuine improvement	IE
Other MS (ATL)	UK

Summary: *Taxus baccata* (Yew) woods of the British Isles, which only occur in the UK and Ireland, are forests composed of Yew trees and are relatively low in species diversity. Grazing by deer and invasive species are the primary pressures and threats to Yew woodlands in Ireland. Improvements in the condition of Yew woodlands have occurred, and further improvements are expected, mainly as a result of conservation measures implemented as part of LIFE projects, the national Millennium Forest Initiative, and through the National Parks Service. Key measures that are driving the improvements are long-term management of Yew woodlands in protected areas, and, more recently deer grazing management, control of invasive species, and the planting of new Yew stands in suitable areas for the habitat.

Background

Status and EU occurrence

Taxus baccata (Yew) woods of the British Isles occur only in the UK and Ireland. In Ireland, they occur on a small number of sites in the south-west (Department of the Arts, Heritage and the Gaeltacht, 2013). Their status in Ireland is currently listed as unfavourable-bad, but is improving, with future prospects listed as unfavourable-inadequate (Annex 1; ETC-BD, 2018).

In Ireland, 82.95 ha of Yew woodland fall within seven Natura 2000 Special Areas of Conservation (SACs). Five SACs list Yew woodland as a qualifying interest covering an area of 79.29 ha. The current area is not considered adequate to ensure the long term survival of the habitat in Ireland, although no decline has been reported. Suitable areas for the habitat are very restricted in Ireland (Cross and Lynn, 2013).

Ecological requirements

Taxus baccata (Yew) woods of the British Isles are forests that are entirely, or almost entirely, composed of Yew trees. Some shrubs also occur, typically in small quantities, such as Box (*Buxus sempervirens*), Hazel (*Corylus avellana*), or Holly (*Ilex aquifolium*). Due to the dense Yew and shrub canopy, undergrowth in the habitat is mostly missing or poorly developed, and regeneration of Yews is limited or absent (Department of the Arts, Heritage and the Gaeltacht 2013). Where natural regeneration does not occur, regeneration is achieved through plantings in existing Yew wood habitats, or in mixed woods with existing Yew stands or trees with potential to become the habitat. The habitat is associated with oceanic climate of the British Isles in areas of dry valleys and scarp slopes on the chalk and limestone hills (EEA/ETC-BD, undated).

Pressures and threats

In its Article 17 report for 2007-12, Ireland indicated that invasive and non-native species and grazing in woodlands are high pressures for Yew woodlands (Cross and Lynn 2013). Grazing in this case refers to game (i.e. deer), and not to livestock (Jervis Good pers. comm.). Reporting was based exclusively, or to a larger extent, on real data from sites/occurrences or other data sources. On the basis of expert judgment the main threats are considered to be the same as the existing pressures, but are expected to be of medium importance on. These threats may be impacting woodland structure and regeneration potential (Cross and Lynn 2013).

Drivers of improvements: actors, actions and their implementation approaches

Organisers, partners, supporters and other stakeholders

National authorities including the National Parks and Wildlife Service, NGOs and volunteer groups, and the Irish semi-state forestry company Coillte are involved in Yew woodland conservation. For the Yew woodlands in the Killarney National Park, the NGOs Woodlands of Ireland and the local Killarney Nature Conservation Group promote their conservation and influence policy, the former primarily at the local level. The Millennium Forests initiative provided strategic and funding support for Yew conservation. The initiative was a joint project of Allied Irish Banks and the Forest Service, managed by Coillte (a state-owned forestry company) and supported by Woodlands of Ireland.

Contributions / relevance of strategic plans

The Habitats Directive has been an important guide on which NGOs and national authorities base their management plans and strategic recommendations related to Yew woodlands (Jervis Good pers. comm.).

For Yew woodland areas in the Killarney National Park, the national park designation has been the most important contributing factor. Because of the designation, conservation measures are implemented there independent of other strategies and have been carried out since the inception of the park (Jervis Good pers. comm., see Measures section below).

Yew woodlands are mentioned in the Irish Natura 2000 Prioritised Action Framework (PAF) 2014-2020. Under the PAF, five SACs are designated for this habitat and conservation measures established (National Parks and Wildlife Service 2014) (see section on Future Actions below).

Yew woodlands are also mentioned in the Strategy for Native Woodlands in Ireland 2016-2020. This strategy was developed by Woodlands of Ireland (a partnership-based environmental charity dedicated to native woodlands) in consultation with forest stakeholders, with co-funding from the Forest Service of the Irish Department of Agriculture, Food & the Marine (DATM); the National Parks & Wildlife Service of the Department of Arts, Heritage & the Gaeltacht (DAHG); and the Heritage Council. It sets out priorities for the conservation and restoration of native woodlands in Ireland, including public and private lands. For Habitats Directive Annex I woodland habitats (including Yew woodlands), the strategy prioritises their restoration and management as SACs, and expansion of woodlands adjacent to SACs as priority areas for conversion to the habitat. Targets are set for the number of hectares to be managed, restored, or converted for all native woodlands, but not broken down specifically to individual habitat types. The strategy also mentions the creation of stepping stone areas to increase habitat connectivity and the creation of native woodland habitats in and near settlements, but does not specifically mention Yew woodlands in connection to these measures (Woodlands of Ireland 2016).

The Forestry Programme 2014-2020 also contributes to the conservation of Yew woodlands. It sets out a proposal for how state funding should be used in forestry. Yew Woodlands are covered under the Native Woodland Conservation Scheme within the Programme (Department of Agriculture, Food, and the Marine 2015). The National Biodiversity Plan cites the Forestry Programme 2014-2020 as contributing to target 4, 'Conserve and restore biodiversity and ecosystem services in the wider countryside' through the creation and restoration of native woodlands, which includes Yew woodland. Objective 4.1.4 of the National Biodiversity Plan is to 'Implement actions in the Forestry Programme 2014-2020, ensuring maximised positive outcomes for biodiversity and ecosystem services and restoration of areas impacted by inappropriate forestry' (Department of Arts, Heritage & the Gaeltacht 2017).

Measures taken and their effectiveness

The measures taken by Ireland for the conservation of the Yew woodland habitat as listed in the Article 17 report for 2007-2012 are given below.

Application of conservation measures for *habitat* for 2007-2012 in Ireland

Measure	Type	Ranking	Inside / outside Natura 2000	Broad evaluation
3.1 - Restoring/improving forest habitats	One Off	High	Both	Enhance Long-term
6.3 - Legal protection of habitats and species	Legal	High	Inside	Enhance

Source: MS-BIOGEO Article 17 report 2013 available at <https://bd.eionet.europa.eu/article17/reports2012/>

Habitat restoration has included removal of invasive species (e.g. invasive shrubs), as this has been found to encourage the regeneration of the shrub layer and the growth of saplings in this habitat (Cross and Lynn 2013). Controls on grazing, such as through fencing to keep out deer, have also contributed to the improvement in the status of the Yew woodland and improved its prospects for the future. Furthermore, as part of the LIFE project 'Restoring Priority Woodland Habitats in Ireland' (Annex 2), the planting of Yew trees and stands, and the removal of other tree species around existing Yews, has significantly expanded the area which can become Yew woodland habitat (Coillte 2009, Cross and Lynn 2013).

The creation of protected areas (SACs and National Parks) has also been important for Yew woodland, as it has allowed special measures to be undertaken and increased the availability of funds for conservation measures and staff, e.g. from the National Parks and Wildlife Service (Cross and Lynn 2013, Jervis Good pers. comm.). The effects of such protected area designations have been noticeable over the long-term, especially at Killarney National Park, as this was established in the 1930s, and conservation measures for Yew woodlands have been taking place since the 1970s (Jervis Good pers. comm.). The benefits of the long-term conservation efforts are reflected in the status of the Yew woodlands at the site.

Funding sources (current and long-term) and costs (one-off and ongoing)

Funding from the National Parks and Wildlife Service supports labour (staff, contractors) and material costs for measures for Yew woodlands within the Killarney National Park in Ireland (Jervis Good pers. comm.). The Millennium Forests initiative also provided funding for the restoration of 16 Irish woodland communities, including Yew woodland. This funding supported important conservation measures for Yew woodlands in the Killarney National Park, such as fencing to prevent grazing damage by deer, invasive species control, and signage for tourists (Jervis Good pers. comm.). LIFE funding also supported Yew woodland maintenance measures and the planting of Yew trees in potential new habitat areas through the project 'Restoring Priority Woodland Habitats in Ireland', which was carried out by Coillte.

During the economic crisis in the 2000s and 2010s, funding for conservation measures was reduced in Ireland, and many projects were scaled back to a maintenance phase. Since the crisis has subsided, more proactive conservation work is beginning to be undertaken again (Jervis Good pers. comm.).

Ireland's 2014–2020 Forestry Programme provides core public funding for the implementation of the Strategy for Native Woodlands.

Future actions:

The 2014-2020 PAF for Natura 2000 identifies the following actions for protected native woodlands in Ireland, including Yew woodland (National Parks and Wildlife Service 2014):

- Development of measures, within appropriate schemes, to improve conservation condition and consolidate existing woodland habitats and increase connectivity.
- Implementation of measures to restore/maintain and expand woodland habitats in order to reduce fragmentation and encourage connectivity.
- Planning and implementation of measures for management of invasive alien species from woodlands and adjacent habitats.
- Deer management in Natura 2000 sites as part of a national deer management strategy.

Continuity of invasive species control measures and deer management have been cited as key for progress in improving the habitat (Jervis Good pers. comm.).

In terms of expanding habitats and improving habitat connectivity, there are isolated Yew trees outside of the Yew woodland habitat areas which could serve as starting points for creating new habitat areas, for example through the targeted introduction of specialist species associated with Yew. However, the habitat is relatively species poor and little is still known about other specialist species in this habitat, so more research would be necessary to support this (Jervis Good pers. comm.). In addition, Yew woodland primarily relies on a specific substrate (shallow soils over limestone pavement or outcrops), so expansion is limited to areas with this substrate. Furthermore, grazing pressure is currently preventing the expansion of Yew woodland in potentially suitable sites within the eastern Burren (Cross and Lynn 2013). Despite these problems, Yew has been planted in suitable sites as part of the LIFE project 'Restoring Priority Woodland Habitats in Ireland', and if successful in the long-term could lead to a significant increase in habitat area (Cross and Lynn 2013).

Achievements

Impacts on the target habitat

Expansion and improvement of Yew woodland habitats has occurred in Ireland, with for example expansion of Yew Woodlands by 45.8 ha as a result of the LIFE project 'Restoring Priority Woodland Habitats in Ireland' (Coillte 2009), and further improvements are expected.

Other impacts (e.g. other habitats and species, ecosystem services, economic and social)

Yew woodlands are not very diverse habitats, but they are home to certain specialist species associated with Yew. These are mostly insect and other invertebrate species. Not much is yet known about these specialist species (Jervis Good pers. comm.). Further research could provide more insights into the impact of Yew woodland conservation on these species.

In the Killarney National Park, Yew woodlands are interspersed between other woodland habitats (e.g. oak woodlands). Therefore, the mosaic structure brings benefits to other habitat types from the positive impacts of management measures for the Yew woodland (Jervis Good pers. comm.). At this site, Yew woodland sites lay along popular tourist routes. Though Yew woodlands as such are not extremely well-known to the general population and do not constitute a major tourist attraction on their own, their existence alongside other native habitats increases the overall diversity that makes the park unique (Jervis Good pers. comm.). In this way, the Yew woodlands contribute to the cumulative attractiveness of the park as a tourist destination.

Conclusions and lessons learnt

The key targeted conservation measures that led to the improvements

- Deer grazing management.
- Removal of invasive species.
- Planting of Yew seedlings.

Conservation measures that have not been sufficiently effective

- No information on this topic could be found for this case study.

Factors that supported the conservation measures

- Protected area status.
- Funding available for protected areas (national parks funding, national forestry programme funding, LIFE).

Factors that constrained conservation measures

- Budget constraints during the economic crisis of the 2000s and 2010s.

Quick wins that could be applied elsewhere for the habitat

- If the pressures on Yew woodlands are the same in other areas (grazing by wildlife, invasive species), the same conservation measures would have a positive effect.

Examples of good practice, which could be applied to other habitats

- Benefits of grazing and invasive species controls, which promote regeneration, can be applied in other woodland habitats where these pressures prevent regeneration.
- Protected area status proved to be helpful for unlocking funding and enabling conservation measures, especially in the long-term – this can also apply to other habitats.

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Authorship

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Annex 1. Status of *Taxus baccata* woods of the British Isles at Member State and biogeographic level

Favourable	FV	Unknown	XX	Unfavourable - inadequate	U1	Unfavourable - bad	U2
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Qualifier (+) improving (-) deteriorating (=) stable (x) unknown (n/a) not reported

	2001-06	2007-12				
	Overall	Range	Area	Structure	Future	Overall (with qualifier)
IE (ATL)	U2	U2	U2	U2	U1	U2 (+)
UK (ATL)	U2 (+)	FV	FV	U2	U2	U2 (=)
EU (ATL) overall	U2	FV	FV	U2	U2	U2 (=)

Source: Member State Article 17 reports compiled by ETC-BD on EIONET
<https://bd.eionet.europa.eu/article17/reports2012/>

Annex 2. LIFE Nature Projects in Ireland that aimed to help conserve the habitat *Taxus baccata* woods of the British Isles (91J0)

Project Title	Project N°	MS	Type Of Beneficiary
Restoring Priority Woodland Habitats in Ireland	LIFE05 NAT/IRL/000182	IE	Public enterprise

Source: Life Programme database, projects with Yew or *91J0* found in a free text search