Biodiversity in Irish Forests

PLANFORBIO

Forest biodiversity includes all forms of life, from trees and plants, animals, fungi and micro-organisms, which provide many vital services to human beings. It is defined as the 'totality of genes, species, and ecosystems of a region'. Forests are complex structural habitats that provide opportunities for biodiversity in the canopy, shrub and ground layers. Some elements of biodiversity are easily identified, such as plants and birds, but many are concealed, such as plants and insects high up in the forest canopy. Managed forests can contribute to biodiversity conservation where management plans are devised with conservation objectives in mind, and simple steps can be taken to improve the value of forests for biodiversity.

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1. *Anobium inexspectatum*
This small, wood boring beetle typically is generally found in the canopies of broadleaved trees, and in particular in stems of ivy. It was reported for the first time in Ireland in 2007 on Oak trees. In the UK is designated rare on the Red List.

Photo: Frank Köhler, koleopterologie.de

2. Goldcrest *(Regulus regulus)*
This is one of our smallest breeding bird species, and they are most numerous in closed-canopy conifer plantations. They feed on tiny insects from the forest canopy and nest near the end of conifer branches.

Photo: Rónán McLoughlin

3. Oakmoss *(Evernia prunastri)*
This native fruticose lichen grows primarily on the trunk and braches of oak trees, but is also found on other trees, including conifers. Common throughout Ireland, oakwood is used by long-tailed tits for nest making. It is also used commercially in other parts of Europe in perfumery and in the production of antibiotics.

Photo: Biopix.dk

4. *Entelecara acuminata*
This small black spider (1.8-2.4mm) spins small sheet webs in forest canopies. This species locally common but patchily distributed in southern England, rarer in northern England, but has been recorded in Scotland. It has recently been found for the first time in Irish forest canopies where it may have previously gone undetected due to its arboreal lifestyle and small size.

Photo: Lynette Schimming

5. Oak beauty *(Biston strataria)*
This large bodied moth species is widespread but scarce in Ireland, flying between March and May. It has a preference for Oak woodlands, though is not restricted to them, and also feeds on hazel and alder.

Photo: Veronica French

6. Treecreeper *(Certhia familiaris)*
This small bird is closely associated with woodland habitats in Ireland, where it nests in loose bark. It feeds on small insects and spiders taken from crevices in tree bark, and also on conifer seeds. It is distinctive for its foraging behaviour, moving vertically up the tree trunk in a spiral motion.

Photo: Biopix.dk

7. *Daltonia splachnoides*
This is a rare epiphytic moss species that is confined to the western fringe of Europe, including Ireland. It is usually found near streams and in very humid areas, and seems to be exploiting the relatively new habitat of conifer plantations which meet its humidity requirements. Because of its very small size it can easily be overlooked.

Photo: Neil Lockhart

8. Bramble
(Rubus fruticosus agg.)
The native blackberry is common in more open canopy plantations and native woodlands in Ireland where grazing is low or absent. Blackberry leaves are food for certain caterpillars and some grazing mammals, especially deer. The sweet berries are eaten and seeds dispersed by several mammals and small birds. Bramble has one of the most nectar rich flowers of our native flora and is ideal for pollinators.

Photo: Anke Dietzsch

12. *Pterostichus oblongopunctatus*
This relatively large forest-associated predatory ground beetle lives under decaying bark or stones in woodlands. It occurs throughout Europe, but its distribution is limited throughout Ireland, which may reflect the lack of recording in suitable habitat, however the species is common where it does occur in Cork and Waterford.

Photo: Roy Anderson

9. *Allocotocera pulchella*
This common forest dwelling fungus gnat was first reported in Ireland in 1837. This species is confined to habitats within the northern continents of the world, and is widespread in Europe where it favours well-wooded, damp habitats. The larvae form silk webs on the surface of fungi to trap fungal spores.

Photo: Rob Deady

10. *Pachygnatha listeri*
This spider is quite restricted in its habitat requirement and generally occurs in well established broadleaved or mixed woodlands. The juveniles spin orb webs at ground level amongst vegetation and leaf litter but are active hunters as adults.

Photo: Finn Krone

11. *Trametes versicolor*
This is a common species of bracket fungus that is found all year round on deadwood in forests throughout Ireland. The colours are extremely variable, although they are always arranged in concentric zones. *Photo: Aisling Walsh*

13. Bluebell
(Hyacinthoides non-scripta)
Bluebells are widespread throughout Ireland and are more common in semi-natural woodlands than in plantation forests. They produce flowers and leaves simultaneously, and so complete their annual life-cycle in just a few weeks during the high light conditions of spring before the canopy closes over. Bluebells can quickly spread in suitable conditions and can be a dominant species on the woodland floor early in the spring. They are, however, intolerant of trampling, heavy grazing, water logging and deep shade.

14. Wood Sorrel
(Oxalis acetosella)
Wood-sorrel is one of the characteristic spring-flowering plants of the forest floor throughout Ireland, though it also grows on moss-covered trees and shady walls. This shade-loving plant has small white flowers with pink streaks, though red or violet flowers also occur rarely. It is native to Ireland and is found in forests throughout the country.

15. Scarlet elf cup
(Sarcoscypha sp.)
This small striking looking fungus, the Scarlet elf cup, grows on rotting deadwood, or in damp soil. It favours damp areas and is often grow in association with mosses.
It can be seen fruiting in Irish forests during winter and spring, and often develops under snow. *Photo: Aisling Walsh*

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