

PLANFORBIO projects

FORESTBIO

Management of biodiversity in a range of Irish forest types.



RHODO

Achieving effective Rhododendron control

HENHARRIER

Optimum scenarios for Hen Harrier conservation in Ireland

BIOPLAN

Implementation of an assessment and monitoring programme for biodiversity in Irish and Scottish forests

Programme Partners

University College Cork, Ireland
Trinity College Dublin, Ireland
Waterford Institute of Technology, Ireland
Coillte Teoranta, Ireland



Planning and Management Tools for Biodiversity in a range of Irish Forests

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FOREST
BIODIVERSITY
RESEARCH
PROGRAMME

2007 - 2012

www.ucc.ie/en/planforbio

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PLANFORBIO



PLANFORBIO Objectives

PLANFORBIO will run from 2007 until 2012 and comprises four individual research projects, with over-arching objectives aimed at improving our understanding of flora and faunal diversity in Ireland's forest estate. PLANFORBIO outputs will inform management decisions for biodiversity conservation and sustainable management of contemporary Irish forests.

Much of the diversity in forests is composed of animals and plants that we don't generally see, including epiphytes and canopy invertebrates. Epiphytes are smaller plants (mainly lichens, mosses & liverworts) which grow on the bark of trees and are a major component of the overall plant diversity in forests but have as yet been little documented.



Collection of canopy invertebrates using a thermal fogging technique

Habitat destruction and the introduction of non-native species have played a significant role in shaping Ireland's forest ecosystems. Since the middle of the last century new forests, comprised mainly of exotic tree species, have been widely established in Ireland. This gave rise to a new forest habitat type in Ireland that now covers almost 10% of the country's area and provides for a wide range of flora and fauna.

An increase in forest cover to 17% by 2030 is supported by government policies, which also aim to increase the planting of native broadleaf species. Forest operations in Ireland must be carried out in compliance with Sustainable Forest Management (SFM) and so, during this intense afforestation phase, enhancement of biodiversity must be considered at all stages of the forest cycle. PLANFORBIO will support these developments by addressing current gaps in knowledge of forest biodiversity in Ireland.

The study will look at conventional production forests composed of both single species of conifers and mixtures of conifers with broadleaves, both in first and second rotation, and compare these with native woodlands. Having assessed the flora and fauna of each woodland type, the project will identify measures that may be used to enhance forest biodiversity, and make recommendations towards establishing long-term monitoring sites within the different types and devising monitoring plans for them.

Target organisms

- Birds
- Ground-dwelling invertebrate animals
- Canopy invertebrate animals
- Lepidoptera
- Ground-dwelling plants
- Epiphytes

Similarly forest canopies support a diverse array of invertebrate animals including predators such as spiders and beetles and herbivores such as aphids and caterpillars that make a significant contribution to overall forest biodiversity. PLANFORBIO has a special component to study these groups in addition to birds and ground dwelling plants and invertebrates. This is innovative both in terms of expected results and the survey methodologies employed.

Endangered and threatened species are prioritised under Ireland's National Biodiversity Plan, and PLANFORBIO includes a project that looks at the Hen Harrier (*Circus cyaneus*) one of Ireland's rarest raptor species. A second species specific project included in the PLANFORBIO research programme looks at the invasive alien shrub *Rhododendron ponticum* which invades several Annex 1 habitats in Ireland listed under the EU Habitats Directive.