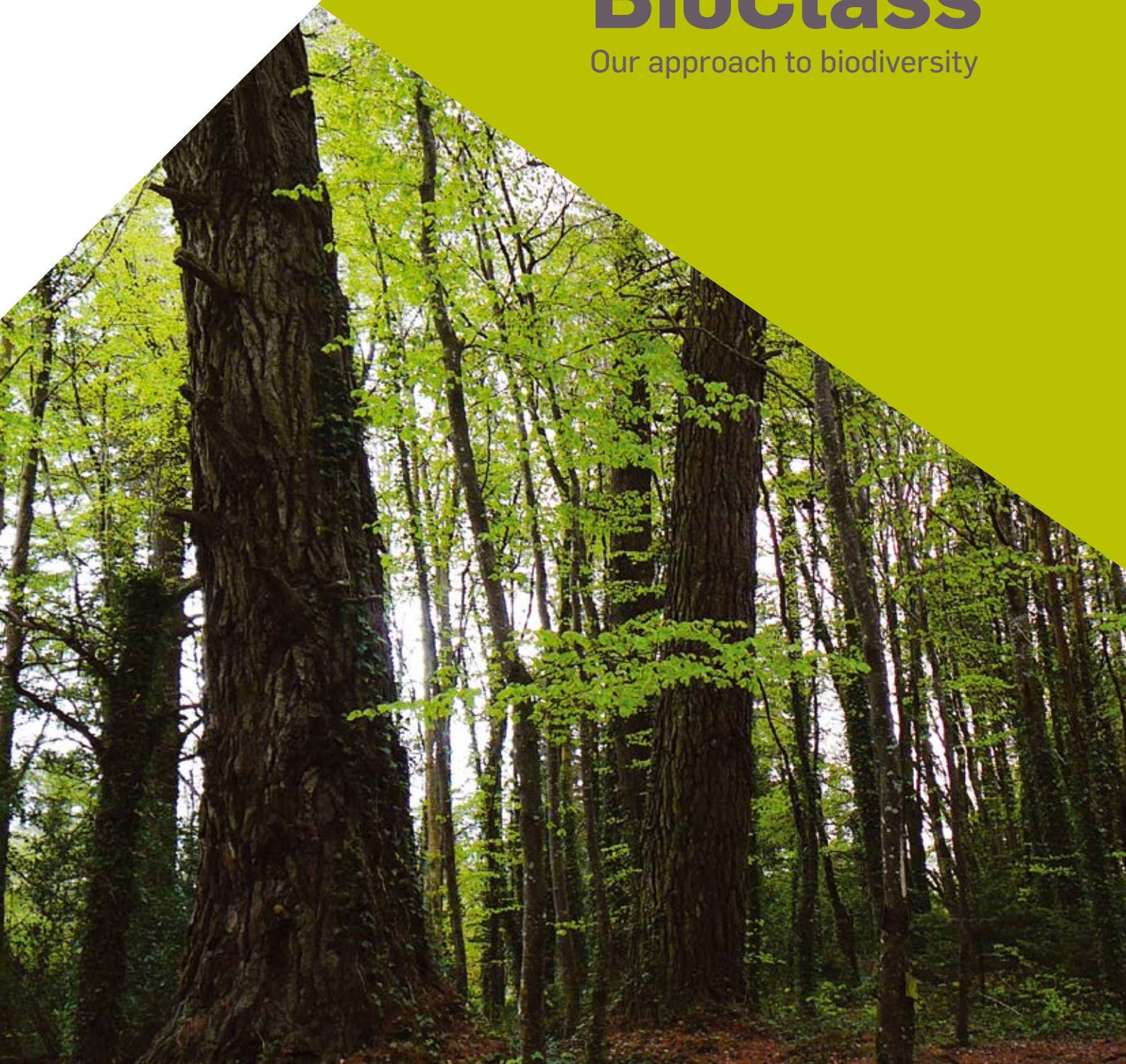




# BioClass

Our approach to biodiversity





# SUMMARY

***Introducing Coillte's BioClass,  
a new tool for recording and reporting  
biodiversity areas on the Coillte estate***

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## THE VALUE OF BIODIVERSITY

The word “biodiversity” is a scientific term, referring to all of the living creatures that form the web of life in which we live. In working terms, the conservation and enhancement of biodiversity refers to the conservation of wild species of plants and animals, and the habitats on which they depend. Usually, though not always, biodiversity is highest in areas where the habitat is in a relatively natural, or close-to-natural, condition. “Nature conservation” refers to proactive management, where the objective is to maintain, enhance or restore natural habitats and/or the species associated with them.

Science has shown that wild species are disappearing at a significant rate, particularly in recent decades, and there are concerns that this has an impact on our wellbeing. All sectors of society are increasingly being asked to engage positively with this issue and find ways to address the balance of nature.

*Biodiversity is about wild species of plants and animals, and the habitats in which they live.*

An immature black darter dragonfly (*Sympetrum danae*) resting on lodgepole pine, on a restored raised bog site in County Tipperary

## COILLTE AND BIODIVERSITY

Coillte's approach to biodiversity is influenced and framed by three factors:

- The company's legal and regulatory framework.

Coillte is a state-owned company, which was established in 1989, for the purpose of managing the national forest estate, primarily on a commercial basis, while recognising the importance of social and environmental factors.

Commercial forestry is the main driving force of Coillte's business, but the company has diversified into other sectors and is the largest single provider in Ireland of outdoor recreation facilities.

The Forest Service has overall responsibility for regulating the management of Ireland's forests, including Coillte forests and private sector forests.

- Nature conservation legislation and standards for Sustainable Forest Management (SFM).

The protection of habitats and species is a major theme in nature conservation legislation and in standards for SFM.

Approx. 96,000 hectares of Coillte land is designated as SAC, SPA, NHA or pNHA. We engage fully with our regulators in relation to activities planned in designated sites.

Coillte has maintained certification of Sustainable Forest Management (SFM) principles since 2001. One effect of SFM and forest certification has been to provide a platform within the forestry sector for a wide range of measures that enhance biodiversity and nature conservation.

- The nature of the Coillte estate and forest history.

The history of forests in the Irish landscape has a major influence on our approach to biodiversity. The landscape of Ireland was once extensively forested with primeval forests of oak, ash, Scots pine, elm, birch, alder and yew. Over thousands of years, these primeval forests were almost totally lost, as land was cleared for agriculture. In addition to this, the climate became cooler and wetter, and peat bogs developed across much of the country.

By the turn of the twentieth century, it is estimated that Ireland's forest cover had almost completely disappeared. In order to address the national forest deficit, the new Irish state began a programme of afforestation. Forest cover in Ireland now amounts to approximately 10.7% of the national land area. The modern forests are very different to the native forests of prehistory, but they do provide important habitat for many native animals and plants.



*Coillte endeavours to balance commercial responsibilities with ecological, social and cultural objectives.*



# BIOCLASS: OUR APPROACH TO BIODIVERSITY

The Coillte estate consists of a varied tapestry of different habitats, ranging from conifer forests and mixed or broadleaved forests, to open bogs and heathlands, to lakes and rivers. The sites with best value for biodiversity are mapped and managed as biodiversity areas.

Coillte first mapped biodiversity areas during 2001-2005. A preliminary review of Coillte's forest inventory, along with the extensive knowledge of Coillte's foresters, revealed the location of potential biodiversity areas within a broad range of site types. Ecologists surveyed the potential biodiversity areas, and assessed their habitat value, based on standard scientific principles. Additional biodiversity areas were subsequently identified by forest managers – mostly, these are riparian buffer zones.

The outcome of this work was that 90,000 hectares (about 20% of the estate), in more than 2,300 sites, were identified and mapped as biodiversity areas.

The biodiversity areas vary widely in terms of their ecological value and management requirements. Some biodiversity areas are already

habitats in good condition, while others show the potential to develop into valuable habitats over time.

While the early surveys yielded good information, we subsequently found that the information recorded by ecologists did not always translate well to foresters. Furthermore, biodiversity areas of all different types looked the same on the maps. We needed to find a way to bring make ecological information more accessible.

In recent years, we invested in the development of BioClass, which is a new system for recording and mapping biodiversity areas. The reasons for developing BioClass were to help staff to better understand our biodiversity resource, to make decisions and prioritise resources.

The concept of BioClass is based on the "yield class" system used by foresters in inventory. Yield classes combine a range of information, such as soil type and tree species, to describe the productivity of a forest stand. BioClass combines a range of information to describe the ecological value of a site.

Based on a review of the scientific literature on biodiversity in Irish forests, we have defined a series of natural values and biodiversity features which indicate the biodiversity value of the forest.

Based on the presence of these natural values or features, a forest can be assigned to one of four BioClass ranks. These range from BioClass 1, the areas of highest ecological value, to BioClass 4, areas that currently have moderate value, or have low value at present, but with potential to develop into habitat of high ecological value.

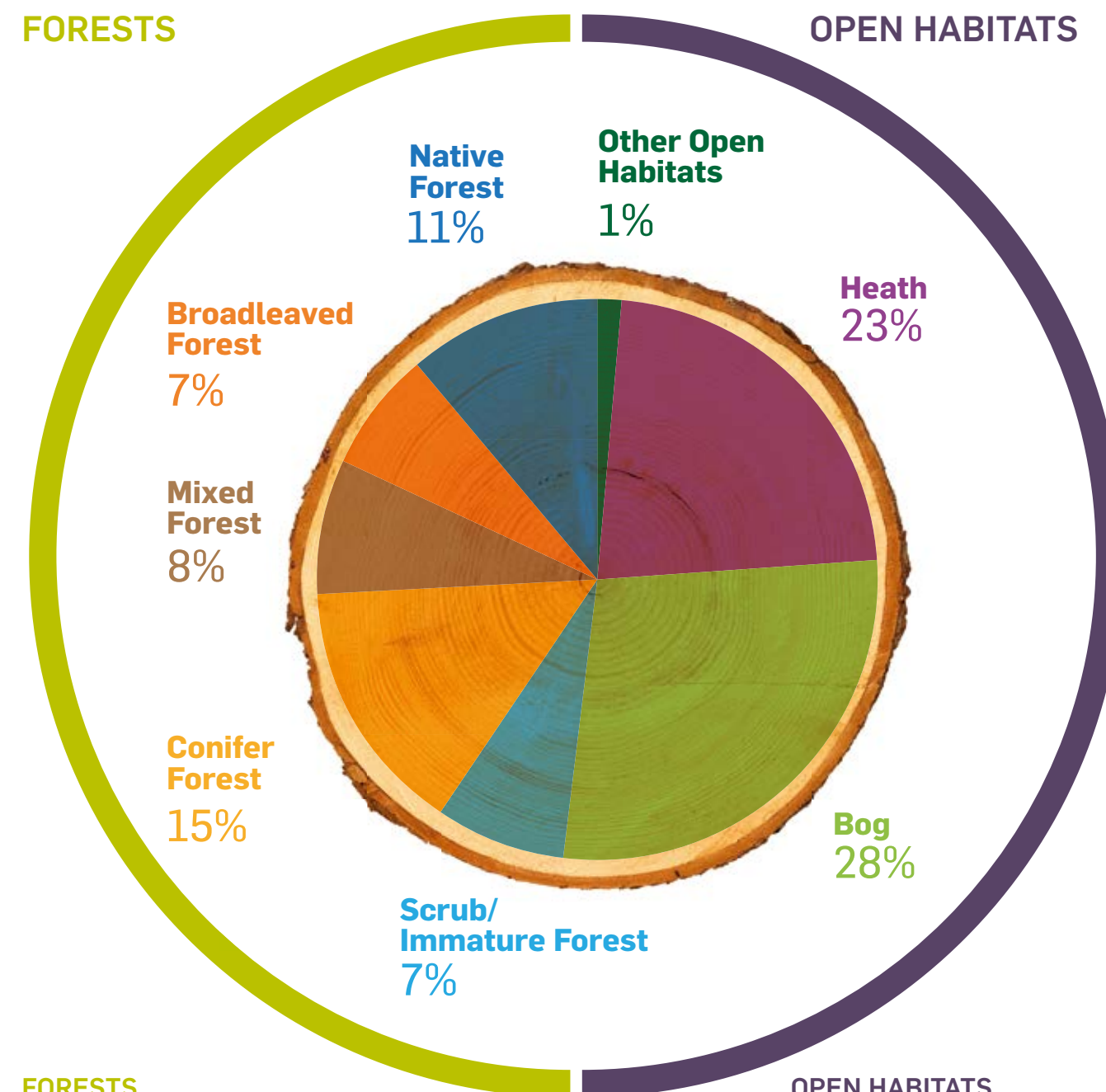
We also developed a BioClass scoring system for open habitats. There are large areas of open habitat on the Coillte estate and this assessment system ensures that the best of them are properly recognised as biodiversity areas.

At present, BioClass assessment is being applied across all biodiversity areas by freelance ecologists. The work is approx. 60% complete to date, and is due for completion at the end of 2018.

*One-fifth of the Coillte estate is mapped as biodiversity areas. This area is about the same as 90,000 football pitches.*

## Habitats in Coillte biodiversity areas

### FORESTS



### FORESTS

Coillte owns and manages approx. 47% of Ireland's forests.

Biodiversity areas comprise a range of forest types: conifer forests, mixed forests, broadleaved forests and native forests

### OPEN HABITATS

The Coillte has large areas of open land that were never afforested.

This includes large areas of bog and heath, as well as smaller areas of rare habitats such as limestone pavement. The best of these are in biodiversity areas.



# THE BIOCLASS TREE

## Forests



**BIOCLASS 1**  
Habitats of ecological significance at international or national level



**BIOCLASS 2**  
Habitats of ecological significance at regional level



**BIOCLASS 3**  
Habitats of ecological significance at county level



**BIOCLASS 4**  
Habitats of ecological significance at forest level, or with good potential for restoration or enhancement

**LANDS OUTSIDE BIODIVERSITY AREAS**

Some biodiversity features and natural values are present but not as many as in biodiversity areas



Outside biodiversity areas, biodiversity features are protected



## Bogs & other open habitats











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