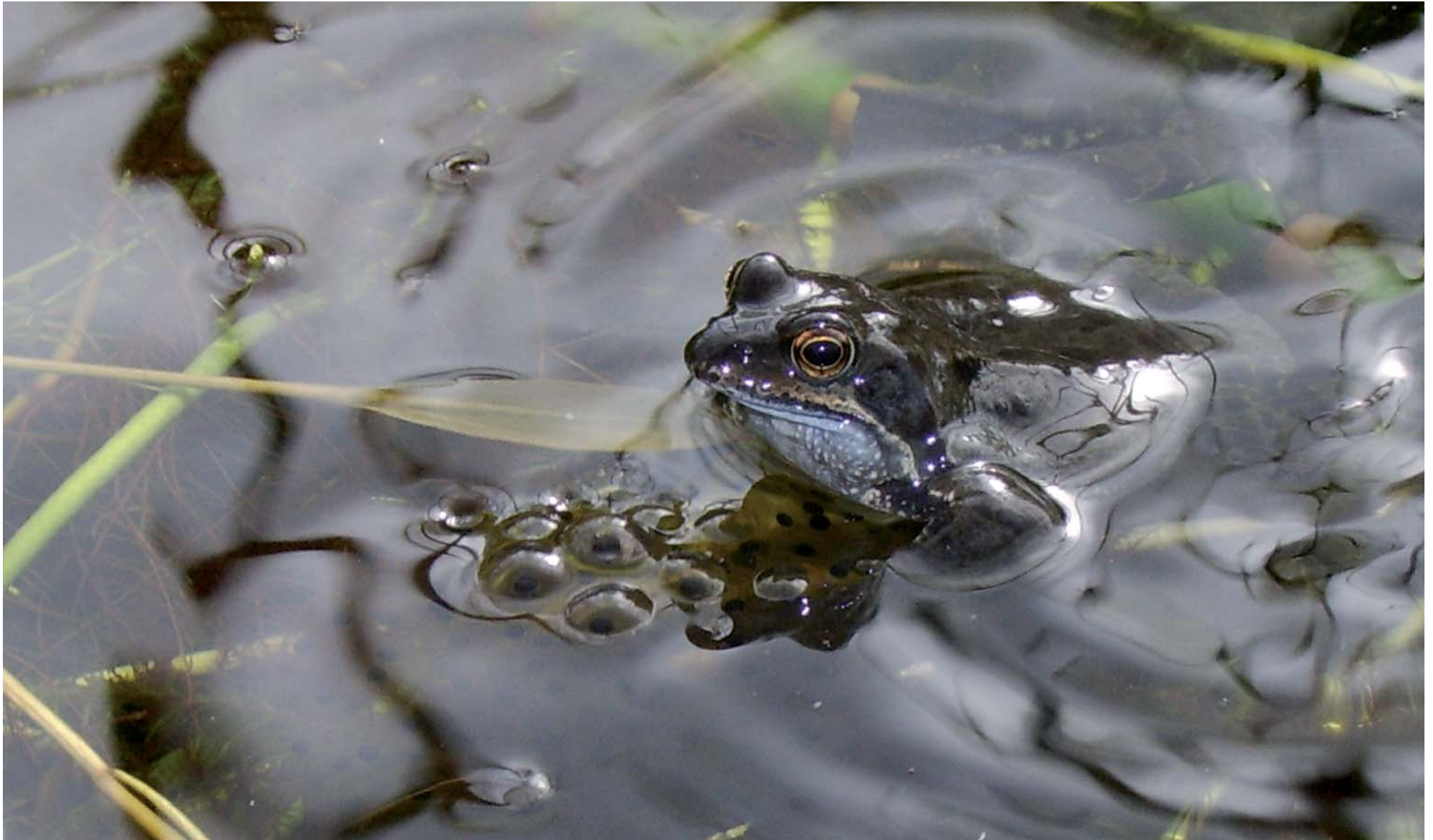


COUNTY KILDARE Biodiversity Plan



Action to enhance our living environment **2009-2014**

AN ACTION OF THE COUNTY KILDARE HERITAGE PLAN



FRONT COVER: MARSH FRITILLARY BUTTERFLY (© Robert Thompson).
ABOVE: FROG (© Oscar O Dugain)

Address from the County Manager, Mr Michael Malone

I welcome the production of the first County Kildare Biodiversity Plan 2009-2014, produced by Kildare County Council in partnership with the County Kildare Heritage Forum and the Heritage Council.

This plan sets out a framework for the protection, conservation and management of the county's biodiversity. This plan will underpin many objectives of the County Kildare Development Plan.

Through the implementation of this plan we hope to improve our knowledge of the county's natural resource, to raise awareness and develop appreciation of the county's biodiversity and the functions it performs. It will guide the sustainable development of the county in a manner which respects and protects this important resource.

To succeed, this plan requires the support of individuals, community groups, the county's local authorities, government agencies, non-government organisations, industry and businesses. This combined effort will ensure the effective protection of the county's natural heritage for the benefit and use of future generations.

I would like to thank all those who contributed to the preparation of this plan. I wish those involved in its implementation every success.



BLACKBIRD (© Eddie Dunne)



Address from the Mayor of County Kildare, Cllr Colm Purcell

I am pleased to welcome the first County Kildare Biodiversity Plan. This plan sets out actions which will serve to improve our understanding of the unique and varied natural resources of the county.

Kildare is a county of diverse landscapes. This contributes to the wealth of biodiversity within the county serves to give Kildare its unique identity. 'There is no landscape like the Kildare landscape!'

The protection of the county's biodiversity is not just a lofty aspiration. Never before has there been a greater need to understand the impact of man on his natural surroundings and the link between biodiversity and issues such as rainfall, flooding and climate change. We must strive to improve our understanding of the biodiversity and habitats that surround us, and the repercussions the loss or removal of these habitats and species will have.

I welcome this plan. Implementation will involve local government, community and government agency participation. Working together on these issues will give us a growing awareness of the contribution and benefits that biodiversity, green space and habitats offer to the people of Kildare.

I wish to thank those who contributed to and participated in the production of this publication. I would like to wish the Biodiversity Working Group every success in the implementation of this plan.

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SITE VISIT TO LULLYMORE



Acknowledgements

This project is co-funded by Kildare County Council and The Heritage Council.

Kildare County Council would like to acknowledge the input of the County Kildare Heritage Forum and the Natural Heritage Working group and their guidance and input in to the compilation of this document.

Kildare County Council would like to acknowledge the submissions made by individuals and organisations (Appendix 2), in particular, Dick Warner, Catherine Farrell, Declan Doogue, Ciara Flynn, Val Swan, Padraic Comerford and Michael Jacob.

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Photos: Eddie Dunne, Zoë Devlin, Robert Thompson, Elizabeth Birch, Mike Brown, Dr. Catherine O'Connell, Déagán dePaor, Paul O'Brien, Christine Taylor, Will Woodrow, Padraig Kavanagh, Pat Tinsley, Derek Bennett.

FAR LEFT: CINNABAR MOTH
MIDDLE: HORSESHOE BAT SITTING ON
A STRNG (© Conor Kelleher)
NEAR LEFT: BLUE TIT
BELOW: IRISH HARE (© Eddie Dunne)



ABOVE: MOORHEN (© Eddie Dunne)
BOTTOM RIGHT: REEDS AT POLLARDSTOWN
FEN (© Catherine O'Connell IPCC)

Introduction

VISION STATEMENT

KILDARE BECOMES A NATIONAL LEADER IN THE MANAGEMENT, PROTECTION AND ENHANCEMENT OF ITS NATURAL HERITAGE AND BIODIVERSITY.

BIODIVERSITY

THE CONVENTION ON BIOLOGICAL DIVERSITY DEFINES BIOLOGICAL DIVERSITY AS 'THE VARIABILITY AMONG LIVING ORGANISMS FROM ALL SOURCES INCLUDING, *INTER ALIA*, TERRESTRIAL, MARINE AND OTHER AQUATIC ECOSYSTEMS AND THE ECOLOGICAL COMPLEXES OF WHICH THEY ARE PART; THIS INCLUDES DIVERSITY WITHIN SPECIES, BETWEEN SPECIES AND OF ECOSYSTEMS'. THEREFORE, BIODIVERSITY REFERS NOT ONLY TO THE VARIETY OF LIFE BUT ALSO TO THE INTERACTIONS BETWEEN LIVING THINGS, AND IT CAN BE CONSIDERED AT THREE LEVELS: ECOSYSTEM DIVERSITY, SPECIES DIVERSITY AND GENETIC DIVERSITY WITHIN SPECIES.

KILDARE

Kildare has a rich and diverse natural heritage with a wide variety of wildlife habitats including peatlands, grassland, woodland, hedgerows, rivers and canals. Even urban areas support wildlife habitats in parks and green spaces, stone walls and bridges, gardens and hedgerows, and along waterways.

Kildare is an inland county. It consists of a low-lying, fertile plain, broken only in a few places by small hills such as the Hill of Allen and Dunmurry Hill, with upland areas mainly on the eastern county boundary. Good agricultural land covers much of county, interrupted in places by expanses of bog and fen, river and canal networks.

WHAT IS BIODIVERSITY?

Biodiversity or biological diversity simply refers to the variety of all living things on earth – including people, plants, animals, fungi and micro-organisms. Biodiversity is another term for nature, natural heritage, wildlife or the natural world. The term biodiversity, however, refers to more than individual species and includes the genes they contain, the ecosystems and habitats of which they form part, and also highlights the interdependence and interconnectedness of all living things.

Biodiversity is everywhere, from gardens to hedgerows, woodlands to wetlands, rivers to coastlines. There are many ways we can enjoy the rich biodiversity of Kildare: while racing at the Curragh, walking in Donadea

woods, boating on the canals, visiting Peatland World or the Bog of Allen Nature Centre, fishing on the Barrow, or enjoying the Japanese Gardens.

WHY BIODIVERSITY IS IMPORTANT

Biodiversity supports life on earth and is part of all our daily lives. We depend on biodiversity for clean air and water, healthy soils, food, building materials, and medicines. The importance of a healthy environment for human health and well-being is being increasingly recognised. The conservation of biodiversity and natural heritage is an integral part of good environmental management.

The attractiveness of Kildare as a tourist destination, a place to live and do business depends to a large extent on the rich biodiversity of the county. Kildare's natural heritage contributes to the attractiveness of landscapes and urban centres. Biodiversity improves the quality of life for visitors and residents alike.





WHAT IS A BIODIVERSITY PLAN AND WHY PREPARE ONE?

The National Biodiversity Plan (NBP), published in April 2002, recognised the key role of local authorities in promoting and delivering the conservation of biodiversity. The preparation of a local biodiversity plan is an action in the NBP.

A biodiversity plan provides a framework for conserving biodiversity and natural heritage at a local level. These plans are designed to ensure that national and international targets for the conservation of biodiversity can be achieved, while at the same time addressing local priorities. The production of the County Kildare Biodiversity Plan is an action in the current County Kildare Heritage Plan 2005-2009 and the County Kildare Development Plan 2005-2011.

The County Kildare Biodiversity Plan consists of a number of practical actions which serve to raise awareness of and enhance the protection, conservation and management of County Kildare's natural heritage. This plan is a non-statutory plan which has been adopted by the members of Kildare County Council.

BIODIVERSITY PLAN PROCESS

Kildare County Council and The Heritage Council commissioned a consultant ecologist to commence the preparation of the County Kildare Biodiversity Plan in 2007. This first phase of the process involved consultation with the relevant bodies and individuals and an information review. In 2008 it was decided to extend the consultation phase to ensure the plan reflected the views of as many people as possible. It was hoped that the second consultation phase would also help to promote the plan and raise awareness of the importance of biodiversity.

The work of the consultant ecologist was overseen by the Natural Heritage Working Group of the County Kildare Heritage Forum, and a Steering Group comprising the Kildare and Kilkenny Heritage Officers (Bridget Loughlin and Dearbhala Ledwidge respectively), Councillor Malcom Noonan and Dr Catherine Farrell of Bord na Móna. The Kildare Biodiversity Plan was prepared following the guidelines produced by The Heritage Council and with regard to the National Biodiversity Plan, the County Kildare Heritage Plan and the County Kildare Development Plan.

RATIFICATION OF THE PLAN

Following a public consultation process, the County Kildare Biodiversity Plan was adopted by Kildare County Council in November 2009.



THE ROLE OF BIODIVERSITY

- PROVIDES THE RAW MATERIAL OF FOOD, CLOTHING, BUILDING MATERIALS AND MEDICINES
- CONTRIBUTES TO THE LIVELIHOODS OF MANY PEOPLE
- ENHANCES OUR QUALITY OF LIFE
- HELPS SHAPE OUR CULTURE
- PROVIDES ENVIRONMENTAL SERVICES SUCH AS POLLUTION CONTROL, FLOOD ATTENUATION AND EROSION PREVENTION

ABOVE RIGHT: RIVER LIFFEY
 ABOVE: COAL TIT
 BELOW: FIELD SCABIOUS (© Zoe Devlin)





OTTER (© Eddie Dunne)

OTTERS

OTTERS HAVE STRONG POPULATIONS IN KILDARE, PARTICULARLY ALONG THE BARROW AND THE LIFFEY. OTTERS ARE A PROTECTED SPECIES UNDER EUROPEAN UNION LEGISLATION MAINLY BECAUSE NUMBERS HAVE DECLINED SHARPLY IN OTHER PARTS OF EUROPE. THE IRISH POPULATION IS THEREFORE PARTICULARLY IMPORTANT. OTTERS DEPEND ON HEALTHY FISH POPULATIONS AND THE PRESENCE OF SUITABLE VEGETATION COVER ALONG THE RIVERBANK IN WHICH THEY MAKE THEIR BURROWS OR 'HOLTS'. RECORDING AND STUDYING THE DISTRIBUTION AND ABUNDANCE OF RARE PLANTS AND ANIMALS IS VERY IMPORTANT FOR MONITORING THE STATE OF THE ENVIRONMENT AND THE IMPACT, IF ANY, OF CLIMATE CHANGE.

County Kildare's biodiversity

Lying between the east coast and Ireland's central plain with the Wicklow Mountains to the south, Kildare is has a wealth of natural habitats which support a wide variety of wildlife, mostly distributed throughout the countryside. Described below are the main habitat types found in the county. For more information have a look at the beautiful publication produced by Kildare County Council and KELT: *Kildare's Natural Heritage*.

PROTECTED SPECIES

Kildare is home to several rare, protected and/or threatened plants and animals. Protected plants are those that are legally protected under the Flora Protection Order within the Wildlife (Amendment) Act 2000 (e.g., Opposite-leaved Pondweed, Basil Thyme or Hairy St. John's-wort). Various animals are also afforded protection within the Wildlife Acts (e.g., all native mammals). Species listed on Annex II of the European Union Habitats Directive (e.g., Otters, White-clawed Crayfish, Marsh Fritillary Butterfly) or Annex I of the EU Birds Directive (e.g., Golden Plover, Kingfisher) are also protected. More information on national and European Union wildlife legislation is provided in the section below titled 'Policies and legislation'.

MARSH FRITILLARY BUTTERFLY

(© Robert Thompson)



WHITE-CLAWED CRAYFISH

THE WHITE-CLAWED CRAYFISH IS REGARDED AS A KEYSTONE SPECIES. IN IRELAND, IT IS FOUND IN LARGE RIVERS (SUCH AS THE RIVER BARROW), SMALL HEADWATER TRIBUTARIES AND IN LAKES. A VARIETY OF AQUATIC HABITATS ARE IMPORTANT FOR CRAYFISH. JUVENILE CRAYFISH LIVE AMONG SUBMERGED TREE ROOTS, GRAVEL OR MACROPHYTES, WHILE LARGER CRAYFISH MUST HAVE STONES TO HIDE UNDER, OR AN EARTHEN BANK IN WHICH TO BURROW. WHITE-CLAWED CRAYFISH ARE WIDESPREAD ACROSS MUCH OF IRELAND AND POPULATIONS HAVE NOT DECLINED TO THE EXTENT THAT THEY HAVE IN OTHER PARTS OF EUROPE.

MARSH FRITILLARY BUTTERFLY

THIS BEAUTIFUL BUTTERFLY IS ONE OF THE MOST ENDANGERED SPECIES IN EUROPE. IT HAS BEEN RECORDED AT A NUMBER OF SITES IN KILDARE, MAINLY IN AREAS OF NATURAL GRASSLAND THAT HAVE BEEN ESTABLISHED ON CUTOVER PEATLANDS. DEVIL'S-BIT SCABIOUS IS THE MAIN FOOD PLANT FOR THE LARVAL STAGE OF THE MARSH FRITILLARY. EFFORTS ARE BEING MADE BY THE IRISH PEATLAND CONSERVATION COUNCIL, THE NATIONAL PARKS AND WILDLIFE SERVICE AND BUTTERFLY CONSERVATION IRELAND TO STUDY THE MARSH FRITILLARY IN KILDARE IN ORDER TO CONSERVE THIS SPECIES FOR FUTURE GENERATIONS.



FRESHWATER CRAYFISH (© Eddie Dunne)

Overview of Kildare's habitats and species



THE GRAND CANAL. THE ROYAL AND THE GRAND CANALS FLOW THROUGH THE COUNTY. BOTH ARE DESIGNATED AS PROPOSED NATURAL HERITAGE AREAS HAVE A RICH NATURAL HERITAGE AND BIODIVERSITY.

Rivers and canals

The three main rivers that flow through Kildare are the Barrow, the Liffey and the Boyne, along with other small rivers and tributaries. These rivers are good for trout and coarse fishing. Salmon were once common but their numbers have decreased, as in other parts of the country, mainly due to a deterioration in water quality and damage to their spawning beds.

The Barrow is designated as a site of international nature conservation importance based on the diverse range of habitats that occur along and in the river, including wet woodland and petrifying springs, and because of the presence of several species such as otters, crayfish and Atlantic salmon. Kingfishers are reported to be common along the Barrow utilising its rich food supply.

The Royal and the Grand Canals flow through the county. Both are designated as proposed Natural Heritage Areas and have a rich natural heritage and biodiversity. The canals have a mosaic of wildlife habitats associated with them which contributes to their high biodiversity value. These include stretches of open water, fringing wetlands, towpath grasslands and hedgerows or patches of scrub. These habitats in turn support a rich wildlife.

The towpath grasslands are of particular interest because they often occur on lime-rich substrate imported to create pathways along the canals and as a result can be quite species-rich. Such natural and unimproved grasslands are an increasingly rare habitat in Ireland.

Peatland

Kildare contains large tracts of peatland and the two main types are raised bogs and fens. Raised bogs are formed from the accumulation of dead plant remains in wet depressions over thousands of years. The acidic nature of the peat and wet conditions results in a deep accumulation of peat which is characterised by a unique flora including many types of sphagnum moss. Raised bogs support a variety of plants that can cope with the wet and acidic conditions including the insect-eating sundews. They also provide a home and/or food for a variety of birds and other animals. Raised bogs are a priority habitat in Annex I of the European Union Habitats Directive.

Large-scale peat extraction has occurred in much of Kildare's raised bogs but a few relatively intact sites remain and some of these have been designated for nature conservation including Red Bog and Mouds Bog. These sites and others in the county are of international significance due to their scarcity on a world-wide scale and because of their unusual flora and fauna.

POLLARDSTOWN FEN

POLLARDSTOWN FEN, THE LARGEST SPRING-FED FEN COUNTRY AND A SITE OF INTERNATIONAL SIGNIFICANCE, CONTAINS A DIVERSE RANGE OF HABITATS. THIS SITE SUPPORTS SOME RARE VEGETATION TYPES AND INVERTEBRATES. IT IS THE ONLY KNOWN SITE IN EUROPE TO SUPPORT ALL THREE SPECIES OF THE RARE WHORL SNAILS, VERTIGO SPECIES. THE FEN IS ALSO IMPORTANT FOR BOTH BREEDING AND WINTERING BIRDS SUCH AS THE LITTLE GREBE, COOT, MOORHEN, AND REED BUNTING. IT IS DESIGNATED AS A SPECIAL AREA OF CONSERVATION.



Bogs and fens are among the best habitats for dragonflies and damselflies in Ireland. They are also good for butterflies including the rare and beautiful Marsh Fritillary Butterfly, which is considered to be one of the most endangered species in Europe. Bogs, and particularly, fens are also important for breeding and wintering birds.

Fens are generally more nutrient rich than raised bogs because they are fed by groundwater and have a higher pH. Fens are often associated with a mosaic of different habitats which include open water, reed swamp, raised bogs and carr woodland.

The Irish Peatland Conservation Council (IPCC) owns and manages a number of peatlands in Kildare for nature conservation and as a educational resource.

BULRUSH, POLLARDSTOWN FEN
(© Paul O'Brien)

BUTTERFLY CONSERVATION IRELAND

A NEW CONSERVATION BODY DEDICATED TO SAVING BUTTERFLIES AND MOTHS HAS BEEN ESTABLISHED AND IS BASED IN COUNTY KILDARE. BUTTERFLY CONSERVATION IRELAND ARE LEASING FROM BORD NA MÓNA AN AREA OF CUTOVER BOG THAT WILL BE MANAGED FOR NATURE CONSERVATION PURPOSES. THIS AREA ALREADY HAS A RANGE OF IMPORTANT WILDLIFE HABITATS AND THE RARE MARSH FRITILLARY BUTTERFLY HAS BEEN RECORDED AT THE SITE.

FOR MORE INFORMATION CONTACT:

JESMOND HARDING,
PAGESTOWN, MAYNOOTH,
COUNTY KILDARE.



FUNGUS ON WOOD

Bord na Móna, which owns much of Kildare's peatland resource, has identified some areas of peatland of high nature conservation value, particularly cutaway bog areas that have recolonised naturally and are developing high levels of biodiversity. Even areas of cutover peatland have a value for wildlife and nature conservation, and have great potential to become natural reserves if managed appropriately.

THE IRISH PEATLAND CONSERVATION COUNCIL (IPCC)

THE IPCC WAS ESTABLISHED IN 1982 TO CAMPAIGN FOR THE CONSERVATION OF PEATLANDS AS AN INTERNATIONALLY IMPORTANT PART OF IRELAND'S NATURAL HERITAGE. THEIR ACTIVITIES INCLUDE EDUCATIONAL PROGRAMMES, PROMOTING ENVIRONMENTAL AWARENESS, PROVIDING INFORMATION ON BOGS AND FENS, AND CAMPAIGNING FOR PEATLAND CONSERVATION. THE IPCC OWNS AND MANAGES A NUMBER OF PEATLANDS FOR CONSERVATION AND RUNS THE BOG OF ALLEN NATURE CENTRE IN COUNTY KILDARE, WHICH IS OPEN TO VISITORS AND SCHOOL GROUPS.

FOR MORE INFORMATION CONTACT:

IPCC, THE BOG OF ALLEN NATURE CENTRE,
LULLYMORE, RATHANGAN, Co. KILDARE.
TEL. (045) 860133/ 860481. E-MAIL BOGS@IPCC.IE
WWW.IPCC.IE

Wetlands

Wetlands such as marshes and riparian zones (habitats along rivers and lakes with vegetation that can tolerate the wet conditions e.g., wet woodland or reed swamp), are also important for wildlife and for helping to maintain water quality.

Woodland and hedgerows

Kildare has many beautiful woodlands including some dominated by native species of trees and others which were planted with broadleaves such as beech (not a native species) or conifers. Woodlands, particularly native woodlands, are often biodiversity hotspots due to the wide range of plants and animals they support. Prime examples of native woodlands in Kildare are Kiltel Wood and Derrylvullagh Wood.

COILLTE

ALL COILLTE PROPERTIES HAVE BEEN SURVEYED TO IDENTIFY AREAS THAT ARE IMPORTANT FOR BIODIVERSITY. THESE AREAS ARE MANAGED TO PROTECT AND ENHANCE THEIR NATURE CONSERVATION VALUE.

COILLTE'S OPEN FOREST POLICY ALLOWS PEOPLE TO TAKE ADVANTAGE OF THE MANY TRAILS THROUGH THEIR FORESTS AND WOODS FOR WALKING AND OTHER OUTDOOR ACTIVITIES. DONADEA FOREST PARK HAS BEAUTIFUL A NATURE TRAIL TO FOLLOW AND ENJOY. COILLTE ARE CURRENTLY DEVELOPING A NATURAL HERITAGE TRAIL IN MULLAGHREELAN WOOD UNDER THE FOREST SERVICE NEIGHBOURWOOD SCHEME.

KILLINTHOMAS WOOD

RATHANGAN CORE GROUP, RATHANGAN TIDY TOWNS ASSOCIATION AND COILLTE HAVE WORKED TOGETHER TO DEVELOP AND PROMOTE THE BEAUTIFUL AMENITY AT KILLINTHOMAS WOOD, RATHANGAN. SEVERAL MARKED TRAILS GUIDE VISITORS THROUGH THE WOODS AND A DISPLAY SIGN HIGHLIGHTS THE FLORA AND FAUNA OF THE AREA. THE WOOD HAS BEEN RECOGNISED BY TIDY TOWNS ADJUDICATORS AS A MAJOR CONTRIBUTION TO WILDLIFE AND AMENITY.

FOR MORE INFORMATION SEE: WWW.RATHANGAN.INFO

Red squirrels are declining nationally due mainly to the spread of the grey squirrel. There has, however, been an expansion of red squirrel populations in north-west Kildare which is a very positive development. Red squirrels are found in woodlands, including commercial conifer plantations. Woodlands are also important habitats for badgers, pine martens, deer, fox and a variety of birds.

Much of the riparian zone along the river valleys of the Barrow and the Liffey is wooded, which probably contributes to the good condition of these rivers.

The County Kildare Hedgerow Survey, which was conducted in 2006, found that Kildare has a rich hedgerow resource which is a huge asset for the county. Hedgerows have many benefits for agriculture, landscapes, environmental quality and, in particular, for wildlife. As linear features on the landscape, hedgerows act as wildlife corridors providing cover for animals



BLUEBELLS (© Christine Taylor)



and birds to move across the landscape, as well as providing a rich source of food. Hedgerow trees add to the structural diversity of hedgerows and provide roosting posts for bats and perching posts for birds. They also give the impression that the landscape is more wooded than it really is.



TOP: GREATER STITCHWORT (© Zoë Devlin)
ABOVE: WAXCAP (© Eddie Dunne)

TREE REGISTER OF IRELAND

THE TREE COUNCIL OF IRELAND AND THE IRISH TREE SOCIETY INITIATED THE TREE REGISTER OF IRELAND (TROI) PROJECT IN 1999 WITH THE AIM OF COMPILING A DATABASE OF TREES IN IRELAND. FIVE THOUSAND TWO HUNDRED TREES WERE MEASURED AND RECORDED OVER THE PERIOD 1999 TO 2001. MANY FINE AND REMARKABLE TREES WERE RECORDED IN COUNTY KILDARE INCLUDING SEVERAL ON ESTATES SUCH AS CARTON HOUSE IN MAYNOOTH, IN DONADEA FOREST PARK AND KILDANGAN STUD. THE TALLEST TREE RECORDED IN KILDARE IS A GRAND FIR STANDING AT 41M IN THE GROUNDS OF CARTON HOUSE. THE TREE WITH THE LARGEST RECORDED GIRTH IN THE COUNTY IS A COMMON LIME WITH A GIRTH OF 23M IN FORENAUGHTS, NAAS.

THE LIST OF TREES RECORDED IN KILDARE CAN BE FOUND ON WWW.TREECOUNCIL.IE.

CRANN

CRANN IS A VOLUNTARY NON-PROFIT ORGANISATION BASED IN KILDARE DEDICATED TO PLANTING TREES AND PROTECTING IRELAND'S WOODLANDS. CRANN WORKS TO MAKE PEOPLE AWARE OF OUR TREES, HEDGEROWS AND WOODLANDS. THEY PROMOTE SUSTAINABLE AND BIODIVERSE WOODLANDS AND ENCOURAGE THE DEVELOPMENT OF A VIBRANT IRISH WOOD CULTURE.

FOR MORE INFORMATION SEE: WWW.CRANN.IE OR CONTACT INFO@CRANN.IE

Thermal springs

There are a number of thermal or warm springs in Kildare. Calcareous springs with tufa formation are recognised by the European Union as a priority habitat for nature conservation under the EU Habitats Directive. Warm springs have their own distinctive fauna with species that are adapted to the environmental conditions present (relatively warm water temperatures that do not fluctuate much throughout the year and often low light conditions). Thermal springs in Kildare include Louise Bridge warm spring near Leixlip (designated as a Special Area of Conservation), St. Patrick's Well, Morristown and Sunday's Well in Clare.

Grassland

Less intensively-managed or improved grasslands and grasslands on lime-rich soils often have greater diversity of grasses and wildflowers than intensively managed grassland and support a large number of invertebrates. These semi-natural grasslands are becoming increasingly rare and survive only in areas that are unsuitable for cultivation or are inaccessible to large

machinery. Semi-natural grasslands can be found in some commonage areas, on cutaway bogland, along road margins, canal banks and abandoned quarries.

THE CURRAGH

A PROPOSED NATURAL HERITAGE AREA, THE CURRAGH IS PROBABLY THE OLDEST AND CERTAINLY THE MOST EXTENSIVE TRACT OF SEMI-NATURAL GRASSLAND IN IRELAND. A LOWLAND ACIDIC GRASSLAND, THE CURRAGH SUPPORTS IMPORTANT POPULATIONS OF RARE FUNGI. IT IS ALSO OF NATIONAL IMPORTANCE FOR POPULATIONS OF WINTERING GOLDEN PLOVER AND LAPWING.

TIDY TOWNS AND COMMUNITY DEVELOPMENT GROUPS

MANY LOCAL TIDY TOWNS GROUPS ARE ACTIVELY INVOLVED IN PROTECTING, MANAGING AND ENHANCING THE NATURAL HERITAGE OF OUR TOWNS AND VILLAGES.

THE NEWBRIDGE TIDY TOWNS ASSOCIATION MANAGE AN AREA OF GRASSLAND KNOWN AS THE 'STRAND' CLOSE TO THE RIVER LIFFEY AS A WILDFLOWER MEADOW. THEY ALSO HAVE A TREE PLANTING PROGRAMME AND PROMOTE THE PLANTING OF NATIVE TREES AND SHRUBS.



Urban wildlife habitats

Urban areas are not necessarily wildlife deserts and a wide range of plants and animals can be found in public green spaces, town parks, old stone walls, hedgerows, graveyards, rivers, canals, gardens and wasteground. Certain species such as foxes have become increasingly visible in urban areas as they forage for food in dustbins and hunt in town parks. Many other animals are present but are a bit more shy in going about their daily activities.

CURRAGH



TOP: GOLDFINCH (© Pdraig Kavanagh)
ABOVE: DRAGONFLY
TOP RIGHT: JAPANESE KNOTWEED
(© Will Woodrow)

THREATS TO KILDARE'S NATURAL HERITAGE AND BIODIVERSITY

Kildare's natural habitats and species are under pressure from many threats such as development, urban expansion, pollution, alien invasive species, habitat loss and fragmentation, peat extraction, inappropriate management and climate change. Biodiversity loss is occurring countrywide due to these pressures despite strategies such as Countdown 2010 (see below) that aim to halt the loss of biodiversity.

COUNTDOWN 2010

COUNTDOWN 2010 IS AN INITIATIVE OF GOVERNMENTS WORLDWIDE TO ACHIEVE A SIGNIFICANT REDUCTION OF THE CURRENT RATE OF BIODIVERSITY LOSS BY 2010. THE EUROPEAN UNION HAS GONE A STEP FURTHER AND IS COMMITTED TO HALTING THE LOSS OF BIODIVERSITY BY THIS DATE. FOR MORE INFORMATION SEE: WWW.COUNTDOWN2010.NET



INVASIVE SPECIES

ALIEN SPECIES ARE PLANTS OR ANIMALS THAT HAVE BEEN INTRODUCED, USUALLY BY PEOPLE, OUTSIDE THEIR NATURAL RANGE. ALIEN SPECIES CAN SOMETIMES BECOME 'INVASIVE' WHEN THEY SPREAD RAPIDLY AND OUTCOMPETE THE NATIVE FLORA AND FAUNA, PUSHING OUT NATIVE SPECIES AND/OR LEADING TO ENVIRONMENTAL DEGRADATION. INVASIVE SPECIES PRESENT ONE OF THE GREATEST THREATS TO BIODIVERSITY WORLDWIDE.

INVASIVE SPECIES CAN BE PARTICULARLY PROBLEMATIC IN AQUATIC SYSTEMS. THEY CAN HAVE A NEGATIVE IMPACT ON RECREATIONAL AND AMENITY USE OF WATERWAYS, AS WELL AS THREATENING NATIVE ECOSYSTEMS.

FOR MORE INFORMATION AND ADVICE SEE: WWW.INVASIVESPECIESIRELAND.COM OR WWW.CFB.IE

CLIMATE CHANGE

THERE IS STRONG SCIENTIFIC EVIDENCE TO SUGGEST THAT THE EARTH'S CLIMATE IS CHANGING. RISING TEMPERATURES, CHANGING RAINFALL PATTERNS AND OTHER ASPECTS OF CLIMATE CHANGE ARE ALREADY HAVING AN IMPACT ON BIODIVERSITY GLOBALLY AND THE EVIDENCE SUGGESTS THAT THESE IMPACTS ARE LIKELY TO BECOME INCREASINGLY APPARENT. POTENTIAL IMPACTS OF CLIMATE CHANGE ON BIODIVERSITY INCLUDE SHIFTS IN THE DISTRIBUTION OF PLANTS AND ANIMALS, LOSS OF HABITAT, CHANGES IN TIMING

OF SEASONAL EVENTS, POPULATION DECLINES/LOSSES AND EXPANSION OF INVASIVE ALIEN PLANTS. MAINTAINING BIODIVERSITY AND NATURAL ECOSYSTEMS IN A HEALTHY STATE CAN HELP REDUCE THE IMPACT OF CLIMATE CHANGE. FOR EXAMPLE, COASTAL WETLANDS IN GOOD CONDITION CAN HELP PROTECT INLAND AREAS AGAINST RISING SEA LEVELS. FLOODPLAINS THAT HAVE NOT BEEN ALTERED SIGNIFICANTLY AND ASSOCIATED WETLAND ECOSYSTEMS CAN HELP LIMIT THE EFFECTS OF RIVER FLOODING.

Policies and legislation

NATIONAL, EUROPEAN AND INTERNATIONAL LEGISLATION

The principal pieces of national legislation that afford protection to Ireland's natural heritage are the Wildlife Act 1976, the Wildlife (Amendment) Act 2000 and the Planning and Development Act 2000. Relevant European legislation includes the European Union Habitats and Birds Directives, and the European Union Water Framework Directive.

The main mechanism for protecting important habitats and sites in Ireland is nature conservation designation. The main national designation is the Natural Heritage Area (NHA).

NATURAL HERITAGE AREA (NHA)

NHA IS THE MAIN DESIGNATION FOR WILDLIFE IN IRELAND PROTECTED UNDER THE WILDLIFE (AMENDMENT) ACT 2000. NHAS ARE AREAS CONSIDERED IMPORTANT FOR THE HABITATS PRESENT OR WHICH HOLD SPECIES OF PLANTS AND/OR ANIMALS WHOSE HABITAT NEED PROTECTION.

The main designations under European legislation are Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

Local authorities have responsibilities in relation to nature conservation, the most important of which is controlling development within designated sites through the planning system. County Kildare contains six Special Areas of Conservation, part of one Special Protection Area and several proposed Natural Heritage Areas (see Appendix 3 for a list and map of all designated sites in Kildare).

SPECIAL AREAS OF CONSERVATION (SAC)

THE EUROPEAN UNION HABITATS DIRECTIVE REQUIRES MEMBER STATES TO DESIGNATE SPECIAL AREAS OF CONSERVATION FOR A NUMBER OF HABITAT TYPES AND SPECIES IN NEED OF CONSERVATION WHICH ARE LISTED IN THE ANNEXES AS PART OF A EUROPE-WIDE 'COHERENT ECOLOGICAL NETWORK' CALLED NATURA 2000. ANNEX I OF THE DIRECTIVE LISTS HABITATS CONSIDERED TO BE OF HIGH CONSERVATION IMPORTANCE INCLUDING SEVERAL PRIORITY HABITATS, AND ANNEX II LISTS SPECIES OF HIGH CONSERVATION CONCERN. HABITATS AND SPECIES LISTED ON ANNEX I AND ANNEX II RESPECTIVELY OF THE DIRECTIVE ARE PROTECTED BY EU AND IRISH LAW. THE EU HABITATS DIRECTIVE IS TRANSPOSED INTO IRISH LAW BY THE HABITATS REGULATIONS, 1997.

SPECIAL PROTECTION AREA (SPA)

THE EUROPEAN UNION BIRDS DIRECTIVE REQUIRES MEMBER STATES TO MANAGE, CREATE AND RESTORE A VARIETY OF BIOTOPES FOR WILD BIRDS AND TO DESIGNATE SPECIAL PROTECTION AREAS FOR BIRDS. SPECIES LISTED IN ANNEX I OF THE DIRECTIVE REQUIRE STRICT CONSERVATION MEASURES, WHILE THE OTHER ANNEXES REGULATE THE HUNTING OF OTHER SPECIES. THE BIRDS DIRECTIVE IS TRANSPOSED TO IRISH LAW THROUGH THE WILD BIRDS REGULATIONS, 1985.



HERON (© Pat Tinsley)



PAINTED LADY
(© Robert Thompson)

CONVENTION ON BIOLOGICAL DIVERSITY (CBD)

THIS INTERNATIONAL TREATY WAS DRAWN UP IN RESPONSE TO THE INCREASING LOSS OF OUR MOST PRECIOUS LIVING RESOURCE, BIOLOGICAL DIVERSITY, DUE TO GLOBALIZATION AND ENVIRONMENTAL DEGRADATION. IT RECOGNISES THAT THE WORLD IS IMPOVERISHED BY THIS LOSS, AND EVEN THREATENED BY IT.

THE OBJECTIVES OF THE CONVENTION ARE AS FOLLOWS:

- I) THE CONSERVATION OF BIOLOGICAL DIVERSITY.**
- II) THE SUSTAINABLE USE OF ITS COMPONENTS.**
- III) THE FAIR AND EQUITABLE SHARING OF BENEFITS ARISING FROM THE USE OF GENETIC RESOURCES.**

IRELAND RATIFIED THE CONVENTION IN 1996. UNDER THE CONVENTION, EACH COUNTRY AGREES TO UNDERTAKE A NUMBER OF ACTIONS TO HALT THE LOSS OF BIODIVERSITY, INCLUDING THE DEVELOPMENT OF A NATIONAL BIODIVERSITY PLAN OR STRATEGY. IRELAND'S FIRST NATIONAL BIODIVERSITY PLAN (NBP) WAS PUBLISHED IN 2002. THE PRODUCTION OF LOCAL BIODIVERSITY PLANS BY LOCAL AUTHORITIES IS AN ACTION IN THE NBP.

**FOR MORE INFORMATION ON THE CONVENTION SEE:
[WWW.CBD.INT](http://www.cbd.int)**

Ireland is also a signatory to the international treaty, the Convention on Biological Diversity (1992).

LOCAL PLANS AND POLICIES

Local authorities in Ireland have wide-ranging roles and responsibilities, covering infrastructure and land use issues, which can affect the extent and quality of the natural environment. Functions such as planning, roads, social housing provision, waste management and sanitary services can all have a significant impact on our natural heritage.

Local authorities, as decision makers and land owners, also have the ability to protect and enhance the natural heritage in the county. This is most effectively achieved through the policies and objectives contained in County and Local Development Plans, and through the consideration of natural heritage in the planning process.

In order for local authorities to fulfill their obligations and responsibilities in relation to the environment and biodiversity, it is important that there are policies in the Development Plan to ensure appropriate levels of protection of the natural heritage. The County Kildare Development Plan includes several policies that relate to the conservation of natural heritage (Appendix 4). The current County Kildare Heritage Plan also has several actions that relate to natural heritage and biodiversity, many of which have been implemented (Appendix 5). One of the actions in the County Kildare Development Plan and the County Kildare Heritage Plan is to produce a biodiversity plan.

The County Kildare Biodiversity Plan



The objectives of the County Kildare Biodiversity Plan are the same as those adopted in the County Kildare Heritage Plan. The only difference is that the focus of the biodiversity plan is solely on natural heritage.

Objective 1: To facilitate the collection and dissemination of heritage information.

Objective 2: To raise public awareness, understanding and appreciation of County Kildare's heritage.

Objective 3: To promote best practice in heritage conservation and management.

Objective 4: To inform policy and provide advice to Kildare local authorities.

Rationale for selecting actions

Actions selected for the County Kildare Biodiversity Plan were based on the results of extensive consultation with a wide range of organisations, groups and individuals (see Appendix 2).

One of the main issues that arose during the consultation process was the lack of awareness of what biodiversity is and why it is important. This lack of awareness is apparent in all sectors of society and is a major obstacle to successfully protecting biodiversity and natural heritage. Several of the actions in the plan, therefore, aim to increase awareness, appreciation and understanding of biodiversity and Kildare's natural heritage.

Key habitats identified in the consultation process include peatlands, hedgerows, rivers and canals (in particular the Barrow, the Liffey and the Grand Canal), thermal springs and semi-natural grasslands, including those in the Curragh. These habitats are considered important because of their

high wildlife value (e.g., hedgerows, rivers and canals), their scarcity and international significance (e.g., peatlands) and/or because they are in decline (e.g., semi-natural grasslands). Many important species were also identified by the consultees from the more obvious such as otters, kingfishers, barn owls to the lesser well-known including rare plants, invertebrates (e.g., Marsh Fritillary Butterfly) and even fungi. Several actions were proposed to increase our knowledge base of these habitats and species, and to raise awareness of their importance. Actions were also proposed to promote and support best practice management of our natural heritage.

The production of local biodiversity plans is an action the first National Biodiversity Plan which recognised that local authorities have a key role in promoting heritage conservation. Several actions are proposed to inform policy and provide advice to Kildare local authorities in relation to the management and protection of biodiversity.



Actions :Objective 1

Objective 1: To facilitate the collection and dissemination of heritage information

NO.	ACTION	POTENTIAL PARTNERS	LINKS TO HERITAGE PLAN
1.	Identify areas of local biodiversity interest in the county. Include sites identified in Local Area Plans and habitat mapping projects. Explore options for protecting these areas.	NPWS, BSBI, IPCC, BnM, Crann, Tidy Towns and community development groups, KLA	
2.	Support and promote the collection of biological data and the lodging of these data in the National Biodiversity Data Centre.	NBDC, KLA	
3.	Support the creation of a network of natural heritage groups and interested individuals.	BSBI, ENGOs, NUI, Maynooth, KLA	
4.	Conduct a survey of towpath grasslands along the Grand Canal.	NPWS, BSBI, Waterways Ireland	
5.	Support county-based Marsh Fritillary surveys and the development a Marsh Fritillary conservation plan.	IPCC, NPWS, Butterfly Conservation Ireland	
6.	Conduct a significant tree survey for the county.	Crann, Forest Service, Tree Council, Coillte, KLA	
7.	Conduct a survey of thermal springs in the county.	NUIM, NPWS, KLA	Action 1.24
8.	Identify important hedgerows in the county i.e., townland boundary hedgerows; ancient hedgerows; hedgerows that contain rare species and/or species-rich hedgerows; and seek to protect them.	Crann, Teagasc, NPWS, BSBI, KLA	

Actions: Objective 2

Objective 2: To raise public awareness, understanding and appreciation of County Kildare's heritage

NO.	ACTION	POTENTIAL PARTNERS	LINKS TO HERITAGE PLAN
9.	<p>Develop a biodiversity awareness-raising campaign for Kildare that focuses on the following:</p> <ul style="list-style-type: none"> • General awareness of biodiversity and natural heritage. • Protected species and habitats. • The conservation value of key habitats and sites in Kildare such as peatlands, hedgerows, rivers and canals (in particular the Barrow, the Liffey and the Grand Canal) and the Curragh. • The impact of climate change on biodiversity. • The problem of invasive species. • The conservation of threatened species and their habitats e.g., barn owls. 	NPWS, ERFB, Teagasc, ENGOs, BSBI, KELT, Tidy Towns and community development groups, KLA	
10.	Promote increased participation in the conservation of our natural heritage by supporting community-led projects including Tidy Towns biodiversity projects.	KELT, ENGOs, Tidy Towns and community development groups, KLA	Action 2.29
11.	Select species for flagship projects that encourage public participation in recording important and easily identifiable species.	NBDC, Tidy Towns and community development groups	Action 2.29
12.	Develop targeted biodiversity education programmes for various key groups including the following: Tidy Towns Groups and Residents Associations, developers and architects, hedge cutting contractors, homeowners and landowners.	NPWS, Heritage Council, KELT, ENGOs, Tidy Towns and community development groups, KLA	Action 3.14
13.	Develop and promote a Kildare biodiversity website.	NPWS, BSBI, Teagasc, ENGOs, KLA	Action 2.2
14.	Identify and promote accessible sites of nature conservation interest in Kildare.	NPWS, Coillte, BnM, IPCC, KELT, KLA	

Actions: Objective 3

Objective 2: To raise public awareness, understanding and appreciation of County Kildare's heritage (cont'd)

NO.	ACTION	POTENTIAL PARTNERS	LINKS TO HERITAGE PLAN
15	Identify options for meeting the needs of teachers in relation to teaching biodiversity.	Kildare Education Centre, KLA	Action 2.27
16	Raise awareness of urban biodiversity, in particular on the wildlife that occurs in urban areas and urban wildlife habitats.	BirdWatch, BSBI, Crann, Tidy Towns and and community development groups, KLA	
17	Support efforts to identify areas of cutover and cutaway peatlands that could be suitable for creating natural reserves.	IPCC, BnM, NPWS, Butterfly Conservation Ireland, KLA	Action 1.28
18	Raise awareness of the importance of hedgerows for wildlife, landscapes and the environment, and promote their conservation.	Crann, Teagasc, KLA	

Objective 3: To promote best practice in heritage conservation and management

NO.	ACTION	POTENTIAL PARTNERS	LINKS TO HERITAGE PLAN
19	Support initiatives that promote the conservation of biodiversity on farms.	Teagasc, KLA	
20	Support the sustainable management of the Curragh.	Curragh Racecourse, Department of Defence, KELT, NPWS, KLA	
21	Encourage nurseries and garden centres to stock native species of trees and shrubs consistent with the findings of the Kildare Hedgerow Survey 2006 (from native seed locally sourced where possible).	KELT, KLA	
22	Identify methods for incorporating natural features, native species and biodiversity into new developments.	NPWS, ENGOs, KLA	

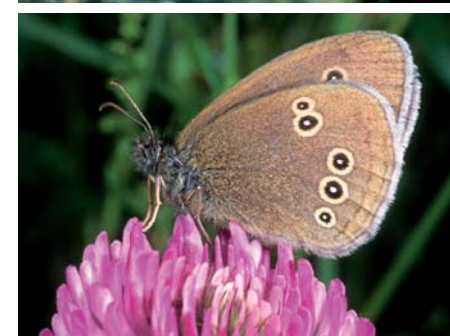
Actions: Objective 4

To inform policy and provide advice to Kildare Local Authorities

NO.	ACTION	POTENTIAL PARTNERS	LINKS TO HERITAGE PLAN
23	Monitor the implementation of Biodiversity Plan and publish an annual review with a view to developing the subsequent 5-year plan.	KLA	
24	Support the implementation of national Habitat and Species Action Plans.	NPWS, KLA	
25	Continue to provide biodiversity training for local authority staff with particular emphasis the following: <ul style="list-style-type: none"> • the management of hedgerows and trees, • carrying out works in or near watercourses, • carrying out works in or near bridges, • the protection of bat roosts and bird habitats, • the control of invasive species, • the retention of natural habitats in new developments, • the use of native species of trees and shrubs, consistent with the findings of the hedgerow survey 2006, and native wildflowers (of native provenance) in local authority planting schemes and in planning conditions. 	NPWS, BSBI, ERFB, BirdWatch, Bat Conservation Ireland, Teagasc, Crann, Waterways Ireland, KLA	Actions 3.1, 3.7, 3.15
26	Encourage the development of biodiversity walking trails.	KELT, BnM, Coillte, Waterways Ireland, Farming Orgs, Tidy Towns and community development groups, KLA	Action 2.10

Abbreviations

BnM	Bord na Móna
BSBI	Botanical Society of the British Isles
ENGOS	Environmental Non-Governmental Organisations (e.g., Crann, BirdWatch, Butterfly Conservation Ireland, Bat Conservation Ireland, Irish Peatland Conservation Council); for contact details see Appendix 1.
ERFB	Eastern Regional Fisheries Board
IPCC	Irish Peatland Conservation Council
KELT	Kildare European Leader Teoranta
KLA	Kildare Local Authorities
NBDC	National Biodiversity Data Centre
NPWS	National Parks and Wildlife Service
NUIM	National University of Ireland, Maynooth



ABOVE LEFT: SWAN (© Derek Bennett)

ABOVE RIGHT: TOP: DRAGONFLY. MIDDLE: PYGMY SHREW (© Eddie Dunne). BOTTOM: RINGLET BUTTERFLY

What you can do

INDIVIDUALS

- Get involved with local organisations dedicated to the conservation of natural heritage such as the Irish Peatland Conservation Council, An Taisce, Crann, Butterfly Conservation Ireland and BirdWatch Ireland.
- Put up a bird table.
- Plant a few native trees and shrubs (e.g., rowan, birch, holly and guelder rose are good for small gardens and are good for wildlife).
- Avoid using herbicides, pesticides and artificial fertilisers.
- If possible, leave an area of your lawn uncut and let it develop into a grassy meadow. Cut late in the Summer.

COMMUNITY AND TIDY TOWNS GROUPS

- Adopt a local natural area and develop a local biodiversity plan.
- Plant native trees and shrubs.
- Put up bird and bat boxes in your local area.
- Organise a clean-up of any rubbish in hedgerows, waterways and other local wild beauty spots.
- Avoid using herbicides, pesticides and artificial fertilisers when managing green spaces.
- Leave some areas to 'go wild' and minimise management such as mowing or strimming.

SCHOOLS

- Develop a wildlife garden project in the school grounds.
- Put up bird tables and study usage.
- Run poster and photography competitions to promote pride in Kildare's biodiversity.
- Facilitate student-led projects to study Kildare's natural heritage.

LOCAL BUSINESSES

- Support local community groups and schools working to improve the natural environment.
- Ensure that business practices do not have a negative impact on biodiversity or the environment.
- Follow the biodiversity guidelines developed by Fáilte Ireland and Notice Nature if your business is directly or indirectly associated with the tourism industry.

LEAVE NO TRACE

LEAVE NO TRACE IS AN OUTDOOR ETHICS INITIATIVE DESIGNED TO PROMOTE AND INSPIRE RESPONSIBLE OUTDOOR RECREATION THROUGH EDUCATION, RESEARCH AND PARTNERSHIPS. INCREASING NUMBERS OF PEOPLE IN IRELAND ARE ENJOYING THE MANY JOYS AND BENEFITS OF OUTDOOR RECREATION. AS A RESULT THERE IS THE POTENTIAL FOR NEGATIVE IMPACTS ON THE ENVIRONMENT SUCH AS LITTER; DISTURBANCE TO VEGETATION, WILDLIFE AND LIVESTOCK; AND WATER POLLUTION. THE LEAVE NO TRACE PROGRAMME SEEKS TO MINIMISE THE SOCIAL AND ENVIRONMENTAL IMPACTS OF OUTDOOR RECREATION THROUGH THE ADOPTION OF SEVEN PRINCIPLES SUCH AS DISPOSING OF WASTE PROPERLY, RESPECTING WILDLIFE AND LIVESTOCK, AND BEING CONSIDERATE OF OTHERS.

MORE INFORMATION ON THE LEAVE NO TRACE PROGRAMME AND PRINCIPLES CAN BE FOUND AT:
WWW.LEAVENOTRACEIRELAND.ORG.



BADGER
(© Eddie Dunne)

APPENDIX 1: Useful Websites and further reading



DOG VIOLET (© Zoë Devlin)

Organisation	Web address
Kildare County Council	www.kildarecoco.ie
An Taisce	www.antisce.org
Bat Conservation Ireland	www.batconservationireland.org
BirdWatch Ireland	www.birdwatchireland.org
Crann	www.crann.ie
Conservation Volunteers of Ireland	www.cvi.ie
The Heritage Council	www.heritagecouncil.com
Irish Wildlife Trust	www.iwt.ie
Irish Peatland Conservation Council	www.ipcc.ie
National Parks and Wildlife Service	www.npws.ie
Nature's Calendar public website	www.biology.ie
Notice Nature (government-sponsored campaign)	www.noticenature.ie
Teagasc	www.teagascenvironment.ie
The Tree Council of Ireland	www.treecouncil.ie
Browne, J. (ed.) <i>Kildare's Natural Heritage</i> . Kildare County Council and KELT, Kildare.	

APPENDIX 2: Consultation process

The consultant ecologists worked closely with the Kildare Heritage Officer, Project Steering Committee and the Natural Heritage Working Group of the Kildare Heritage Forum in the preparation of the Plan.

Consultation methodology

A consultation form was circulated widely and advertisements were placed in the local press to inform people about the process and to seek their views. A wide range of individuals and organisations were contacted directly, including the following: all the relevant statutory bodies and environmental non-governmental organisations, local and national experts, tidy towns and community development groups, local elected representatives, and other individuals or groups that expressed an interest in natural heritage.

Meetings attended by the Consultant Ecologist in 2008:

Project Steering Committee	1st May 2008
The Natural Heritage Working Group of the County Kildare Heritage Forum	29th May 2008
The County Kildare Heritage Forum	18th September 2008
Public consultation meeting held in the Kildare County Council	18th September 2008



BALLYNAFAGH LAKE

APPENDIX 2: Consultation process (cont'd)

Contact person	Organisation	Contact person	Organisation
Adrian Meaney		John Hardy	
Anne Murray		Karen Bothwell	Coillte
Breda Lyons	Coillte	Liam Kenny	Local history group
Brid Óg Norrby		M.B. McMahon	
Catherine Farrell	Bord na Móna	Mary Tubridy	Ecological consultant
Ciara Flynn	NPWS	Michael Jacob	Butterfly Conservation Ireland
Conor O'Brien	Lexlip Tidy Towns	N Meagher	
Cormac Mc Carthy	Waterways Ireland	Neil Foulkes	Hedgerow expert
Darragh Ennis	NUIM	Paddy Madden	Primary teacher, heritage in schools
Deaglan de Paor	Newbridge Tidy Towns Association	Padraic Commerford	NPWS
Declan Doogue	BSBI	Pamela de Bri	
Dick Warner		Sarah Malone	IPCC
Dolores Hamill	Kildare Education Centre	Simon Wallace, Parks	Kildare County Council
Elizabeth Birch		Stephen J. O'Byrne	
Fiona Breslin	Ballymore Eustace Community Development Association	Thomas Deegan	Ballymore Eustace Trout and Salmon Angler's Association
Gay Brabazon		Tony McEvoy Cllr	Kildare County Council
Geoff Hamilton	Red Squirrel Project	Val Swan	NPWS
Ian Weir			
Isie Dempsey	Kildare Carers Association		
J. O'Connell PP			
Joe Barry	CRANN		
John Coll	NUIM		

Membership of the Natural Heritage Working Group of the Kildare Heritage Forum

Cllr Breege Lynch	Kildare County Council
Cllr Tony McEvoy	Kildare County Council
Cllr Shane Fitzgerald	Leixlip Town Council
Dara Wyer	Environmental Awareness Officer
Marie Hill	Teagasc
Ciara Flynn	National Parks and Wildlife Service
Bill Murren	Forest Service
Catherine Farrell	Bord na Móna
John Sweeney	Department of Geography, NUI Maynooth
Gerald Smith	IFA
Sean Flannery	Community and Voluntary Forum
Sarah Maloney	IPCC
Karen Bothwell	Coillte

APPENDIX 3: Sites designated for Nature conservation in County Kildare

Natural Heritage Areas

NO.	SITE NAME	SITE CODE
1	Ballina Bog*	00390
2	Barrow Valley at Tankardstown Bridge*	00858
3	Carbury Bog	01388
4	Corballis Hill*	01389
5	Curragh*	00392
6	Derryvullagh Island*	01390
7	Donadea Wood*	01391
8	Dunlavin Marches*	01772
9	Grand Canal*	02104
10	Hodgestown Bog	01393
11	Kilteel Wood*	01394
12	Liffey at Osberstown*	01395
13	Liffey Bank at Athgarvan*	01396
14	Liffey Valley Meander Belt*	00393
15	Oakpark*	00810
16	Royal Canal*	02103

* Proposed NHA

Special Areas of Conservation

NO.	SITE NAME	SITE CODE
1	Pollardstown Fen	00391
2	Ballynafagh Bog	00396
3	Ballynafagh Lake	001387
4	Rye Water Valley at Carton	001398
5	Mouds Bog	002331
6	River Barrow and Nore	002162
7	Red Bog	000397

Special Protection Area

NO.	SITE NAME	SITE CODE
1	Poulaphuca Reservoir	004063

APPENDIX 4: Relevant Policies in the County Kildare Development Plan



HEDGEHOG
(© Mike Brown)

- NH 1 To facilitate the protection of all designated wildlife sites, including any additions or alterations to these, from any development that would adversely affect their conservation value.
- NH 2 To ensure that any development proposal, within the vicinity of or having an effect on a designated site, will provide sufficient detail illustrating how it will impact upon the designated site, and will include proposals for appropriate amelioration. In all such cases, the Council shall consult with the National Parks and Wildlife Section of the DoEHLG.
- NH 3 To recognise the National and International importance of Pollardstown Fen and its designation as a wildlife site. The Council will facilitate the protection and conservation of the Fen. The Council will consult with The National Parks and Wildlife Service of the DoEHLG in relation to any proposed development within or in the vicinity of the Fen.
- NH 4 To identify, protect and conserve, in cooperation with the relevant statutory authorities and other groups, a representative sample of the county's wildlife habitats of local or regional importance, not otherwise protected by legislation.
- NH5 To conserve, protect and enhance wherever possible wildlife habitats such as rivers, streams, lakes, bog, fen, scrub and woodlands, field boundaries (hedgerows, and ditches) that occur outside of designated areas. Such features form part of a network of habitats and corridors, which allow wildlife to exist and flourish.
- NH 6 To identify, protect and conserve, in cooperation with the relevant statutory authorities and other groups, vulnerable, rare and threatened species or wild fauna and flora and their habitats.
- NH 11 To integrate biodiversity considerations into all Council activities.
- NH 12 To prepare a biodiversity plan for the county in accordance with the National Biodiversity Plan (2002), and liaise with all relevant agencies and community groups in its preparation and implementation.
- NH 13 To discourage the felling of mature trees to facilitate development, and to encourage tree surgery rather than felling where possible.
- NH 14 To promote the protection of trees, in particular native and broadleaf species, which are of conservation and/or amenity value. Development that requires the felling of mature trees of species of interest, even though they may not be listed in the Development Plan, will be discouraged.
- NH 15 To conduct a survey of the county to identify trees suitable for Tree Preservation Orders (TPO) in order to protect trees of high value throughout the county. Existing TPOs are listed in Table 17.3.
- NH 16 To promote the planting of native hardwood species.
- NH 17 The Council will encourage the protection of hedgerows, which are a unique habitat for wildlife. They provide a valuable corridor for wildlife and contribute to the visual amenity of the countryside. In particular, the Council will expect all new developments to comply with the requirements for the protection of hedgerows and the inclusion of hedgerows within the overall development design.
- NH 18 To promote the environmentally sensitive management of hedges in accordance with best practice.



- NH 19 To support the provisions of the Wildlife Act, which seek to prohibit the cutting of hedges within the nesting period (1st March until September 1st) as per the Wildlife (Amendment) Act, 2000.
- NH 20 In association with Waterways Ireland, the National Parks and Wildlife Service of the DoEHLG and local communities, the Council will

seek to protect items of architectural heritage or industrial archaeological interest associated with the canal systems.

- NH 21 In partnership with Waterways Ireland and the National Parks and Wildlife Service of the DoEHLG, the Council will seek to preserve the quality and quantity of water in the canal .

'ON THE RUN'
(© Pat Tinsley)

APPENDIX 5: Completed natural heritage actions in the County Kildare Heritage Plan

OBJECTIVE 1: To facilitate the collection and dissemination of heritage information

NO.	ACTION	POTENTIAL PARTNERS	COMPLETED
1.17	Collate existing datasets on natural heritage in County Kildare. Make information available. Identify information gaps.	Bord na Móna, Coillte, DoEHLG, Eastern and Southern Regional Fisheries Boards, IFA, IPCC, NUIM, County Kildare Heritage Forum, Waterways Ireland, Kildare Fáilte, Forest Service.	2006.
1.18	Commence a habitat survey of the county, identifying locally important sites.	Bord na Móna, Coillte, DoEHLG, Eastern and Southern Regional Fisheries Boards, IFA, IPCC, NUIM, KCC, Waterways Ireland.	Commenced in 2007– four towns selected. Continued in 2008– six villages selected.
1.19	Conduct a survey of hedgerows in the county to include extent, composition, condition, management and historical aspects.	DoEHLG, Coillte, IFA, County Kildare Heritage Forum, Teagasc.	Completed 2006.
1.20	Identify existing Tree Preservation Orders in the county. Identify and designate trees or groups of trees suitable for preservation.	Coillte, Forest Service, KCC.	Four exist. Action in LAPS to do more. Not done.
1.21	Conduct a waterways corridor study for Kildare’s canals.	DoEHLG, KCC, Waterways Ireland, KELT.	
1.23	Identify sites of geology and geomorphology in the county. Compile an inventory of scientific papers relating to geology and geomorphology in the county.	DoEHLG, Geological Survey of Ireland, IFA, Teagasc, County Kildare Heritage Forum.	Completed 2005.
1.24	Prepare an inventory of flood plains, naturally occurring springs and fords in the county.	Geological Survey of Ireland, KCC.	Thermal springs project with NUIM.
1.26	Conduct waterways corridor studies for rivers in the county.	DoEHLG, KCC.	
1.27	Conduct an audit of heritage education in the county.	Heritage Forum, Kildare Education Centre, KELT.	
1.28	Conduct a survey on the suitable reuse/regeneration of cutover and cutaway bogs. Develop a pilot area to demonstrate results in the county.	Bord na Móna, DoEHLG, IPCC.	Bord na Móna

Completed natural heritage actions in the County Kildare Heritage Plan

OBJECTIVE 2. To raise public awareness, understanding and appreciation of County Kildare's heritage

NO.	ACTION	POTENTIAL PARTNERS	COMPLETED
2.2	Develop and maintain a dedicated heritage website for the county to be part of Kildare County Council's website. This web site will be linked to other relevant websites.	County Kildare Heritage Forum, KCC, County Kildare Archaeological Society, Kildare Fáilte, Local History Federation.	Ongoing.
2.3	Publicise inventories and surveys conducted as part of the plan, lodge in the County Library and make available to the public.	County Kildare Heritage Forum.	Ongoing.
2.4	Produce a series of heritage publications to promote all aspects of Kildare's heritage, built, natural and cultural. Target of two publications per year.	County Kildare Heritage Forum, DoEHLG, KCC.	Ongoing – Hedgerow leaflet 2008. Biodiversity guidelines for developers 2008.
2.5	Conduct talks and exhibitions on various heritage aspects throughout the county.	Coillte, County Kildare Archaeological Society, DoEHLG, Kildare local authorities, County Kildare Heritage Forum, Library Service, NUIM, Waterways Ireland, Local History Federation.	Ongoing.
2.10	Identify and promote walking routes and 'Greenways' within the county, including villages and towns. Identify and promote ancient roadways within the county such as Slí Dála.	Bord na Móna, Coillte, DoEHLG, Farming Organisations, KCC, KELT, County Kildare Heritage Forum Kildare Education Centre, Landowners, Waterways Ireland, Kildare Fáilte.	Part A completed in 2005.
2.11	Establish links between third-level Institutions, local authorities and local communities, which will benefit local heritage.	DIT, KCC, County Kildare Heritage Forum, NUIM, UCD.	Ongoing.
2.12	Inform general public, particularly estate agents, auctioneers, farmers and public bodies of protected sites (NHA, SAC, SPA), Protected Structures (RPS) and monuments and archaeological sites (Record of Monuments and Places) and make them aware of the level of protection these sites and structures have under national and international legislation.	DoEHLG, County Kildare Heritage Forum, farming organisations, KCC, Teagasc.	Ongoing.
2.20	Prepare an inventory of heritage gardens, parks and demesnes in Kildare.	KCC, County Kildare Archaeological Society, DoEHLG, NIAH, HMAAC.	NIAH Garden Survey.

Completed natural heritage actions in the County Kildare Heritage Plan

OBJECTIVE 2. To raise public awareness, understanding and appreciation of County Kildare's heritage (cont'd)

NO.	ACTION	POTENTIAL PARTNERS	COMPLETED
2.21	Promote the Birdwatch Ireland Countryside Bird Survey.	BirdWatch Ireland, DoEHLG, KCC, Kildare Fáilte, Teagasc, IFA.	Discovering Kildare Wildlife biodiversity talks and workshops 2007 and 2008. <i>Kildare's Natural Heritage – 2007.</i>
2.22	Develop a 'birds in the schoolyard project' to be piloted in a school in each electoral division.	BirdWatch Ireland, DoEHLG, KCC, Kildare Education Centre, Kildare Fáilte.	2005, 2006, 2007, 2008.
2.23	Promote awareness of importance of wildlife on intact bogs and cutaway bogs.	Bord na Móna, DoEHLG, IPCC.	Discovering Kildare Wildlife biodiversity talks and workshops 2007 and 2008. <i>Kildare's Natural Heritage – 2007.</i>
2.24	Encourage communities adjacent to cutaway and cutover bogs to develop amenities in conjunction with Bord na Móna.	Bord na Móna, Community and Voluntary Forum, IPCC, KCC.	Ongoing. Bord Na Móna.
2.25	Raise awareness of the importance of water quality for nature conservation.	DoEHLG, KCC.	<i>Kildare's Natural Heritage – 2007.</i>
2.26	Produce an information sheet on the importance of maintaining existing waste treatment systems.	DoEHLG, EPA, KCC.	
2.27	Promote the 'Heritage in Schools' Programme. Seek to promote awareness of built heritage in schools. Assist the Kildare Education Centre in the development of heritage-related training courses.	Heritage Council, Kildare Education Centre, KCC, DoEHLG, KELT.	Birds in schoolyard. Heritage Office website.
2.28	Promote the awareness and conservation of heritage on farms.	DoEHLG, IFA, KCC, Teagasc.	<i>Kildare's Natural Heritage – 2007.</i> <i>Hedgerows of County Kildare – 2008.</i>
2.29	Develop a list of local heritage projects that would benefit heritage in the county and which could be carried out by local groups.	Community and Voluntary Forum, KCC, Local History Federation, County Kildare Archaeological Society, KELT	Ongoing advice to Tidy Towns groups informally and through annual seminars. Tidy Towns ecological surveys and Tidy Towns ecological projects 2008.

Completed natural heritage actions in the County Kildare Heritage Plan

OBJECTIVE 3. To promote the best practice in heritage conservation and management

NO.	ACTION	POTENTIAL PARTNERS	COMPLETED
3.1	Develop an education programme for local authority staff and councillors on all aspects of Kildare's built, natural and archaeological heritage.	Kildare local authorities, County Kildare Heritage Forum, DoEHLG.	Training for the biodiversity guidelines to all staff. Invasive species training 2008.
3.7	Provide advice and training for local authority staff, local communities and management committees on the best practice for the management of graveyards. This training will include consideration of natural and built heritage.	DoEHLG, Heritage Council, KCC.	Training course 2006.
3.8	Establish a 'Golden Mile' project in the county.	KCC, DoEHLG. KELT, Crann.	
3.9	Encourage the planting of native trees in suitable locations through the Native Woodland Scheme and NeighbourWood Schemes.	Community and Voluntary Forum, DoEHLG, Forest Service, KCC, Kildare Fáilte.	Website and info to tidy towns groups.
3.10	Produce policy papers and 'best practice guidelines' on the following topics: <ul style="list-style-type: none"> The siting and landscaping of new developments. Biodiversity and road design (considering the NRA guidelines). Biodiversity considerations in site development and site management. 	DoEHLG, KCC.	Guidelines to developers 2008. County Development Plan 2005-2011. Rural guidelines re siting of buildings. Biodiversity guidelines for developers and householders 2008.
3.11	Produce guidelines for the incorporation of biodiversity considerations into local authority activities.	DoEHLG, KCC.	Biodiversity advice notes 2005.
3.12	Examine the feasibility of strengthening enforcement measures by use of a 'landscape bond'.	County Kildare Heritage Forum, KCC.	
3.13	Initiate a conservation and management strategy for the Curragh. Review existing plans i.e., SRUNA and Task Force reports.	Curragh Racecourse, Department of Defence, KELT, DoEHLG, County Kildare Heritage Forum, Kildare Fáilte.	Aspects of Kildare's heritage seminar addressed ecology <i>Kildare's Natural Heritage</i> 2007.

Completed natural heritage actions in the County Kildare Heritage Plan

OBJECTIVE 3. To promote the best practice in heritage conservation and management (cont'd)

NO.	ACTION	POTENTIAL PARTNERS	COMPLETED
3.14	Provide training, advice and best practice guidelines for Tidy Towns Associations and community groups in relation to wildlife and built heritage.	DOEHLG, Heritage Council, KCC, Kildare Fáilte, KELT.	Ongoing.
3.15	Promote the correct management of hedgerows and roadside verges. Provide training for landowner, contractors and local authority staff.	DOEHLG, hedge contractors, IFA, KCC, Teagasc.	Hedgerow leaflet 2008.
3.16	Promote the geology and geomorphology of the county.	Geological Survey of Ireland, KCC, KELT.	Report of study. No promotion done yet.



ABOVE: GERMANDER
SPEEDWELL (© Zoë Devlin)
RIGHT: HERITAGE BUTTERFLY
NEWBRIDGE (© Déagán dePaor)



Completed natural heritage actions in the County Kildare Heritage Plan

OBJECTIVE 4. To inform policy and to provide advice to Kildare local authorities

NO.	ACTION	POTENTIAL PARTNERS	COMPLETED
4.1	<p>Seek the appointment of staff, resources permitting, within Kildare local authorities to ensure adequate expertise is available to facilitate the conservation of the county's heritage.</p> <ul style="list-style-type: none"> • County Kildare Archivist (full time). • County Archaeologist. • County Landscape Architect. 	DoEHLG, Kildare local authorities.	Parks superintendent appointed.
4.7	<p>Conduct heritage appraisals of all County, Town and Local Area Plans to ensure that all aspects of heritage, as defined by the Heritage Act 1995, are considered.</p> <p>Include information generated by local surveys and inventories in town and local plans.</p>	KCC, DoEHLG.	Heritage appraisal of Athy and County Development Plan completed. SEAs now conducted. Habitat mapping will feed into local plans.
4.9	<p>Carry out an audit of sites and structures of natural, archaeological, architectural or historic merit which are owned by County Kildare local authorities (including graveyards) and set up an in-house advisory group to explore issues of management and maintenance.</p> <p>Establish an inventory of local authority-owned works of art.</p>	County Kildare local authorities, DoEHLG, NIAH, The Heritage Council.	One SAC in control of KCC. Surveys carried out and currently monitoring on this site.
4.10	Prepare a biodiversity plan for the county (in accordance with the National Biodiversity Plan).	Natural Heritage Working Group.	Prepared 2008.
4.11	Review current consultation process between County Kildare local authorities and statutory bodies in relation to all aspects of heritage with a view to identifying how these processes can be improved.	County Kildare local authorities, Heritage Forum, Statutory Bodies as per Planning and Development Act 2000.	Ongoing.
4.12	Prepare an Indicative Forestry Strategy for the county.	Coillte, Forest Service, KCC.	Forest Service.



NHA SITES :

Site No	Site Name
00390	Ballina Bog
00391	Ballynafagh Bog
01387	Ballynafagh Lake
00858	Barrow Valley at Tankerdstown Bndge
01388	Carbury Bog
01389	Corballis Hill
00392	Curragh
01390	Derryvullagh Island
01391	Donadea Wood
01772	Dunlavin Marshes
02104	Grand Canal
01393	Hodgestown Bog
01394	Kilteel Wood
01395	Liffey at Osberstown
01396	Liffey Bank at Athgarvan
00393	Liffey Valley Meander Belt
00395	Mouds Bog
00810	Oakpark
00396	Pollardstown Fen
00731	Pollaphuca Reservoir
00397	Red Bog
02103	Royal Canal
01398	Rye Water Valley/Carlton

SAC SITES:

Site No	Site Name
002331	Mouds Bog
00396	Pollardstown Fen
00391	Ballynafagh Bog
01387	Ballynafagh Lake
01398	Rye Water Valley/Carlton
002162	Barrow River
000397	Red Bog

SPA SITES:

Site No	Site Name
00731	Pollaphuca Reservoir





COUNTY KILDARE Biodiversity Plan

Action to enhance our living environment **2009-2014**

Kildare has a rich and diverse natural heritage which includes a wide variety of wildlife habitats such as peatlands, woodland, grassland, hedgerows, inland waterways and urban gardens. Biodiversity refers to the variety of all living things on earth including people, plants, animals, fungi and micro-organisms, the habitats and ecosystems they are part of, and the interconnectedness between all living things.

In 2008 Kildare County Council adopted this document, the first County Kildare Biodiversity Plan, which contains a number of actions which serve to raise awareness and enhance the protection, conservation and management of County Kildare's natural heritage resource.

For further information please contact:

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An Chomhairle Oidhreachta
The Heritage Council

