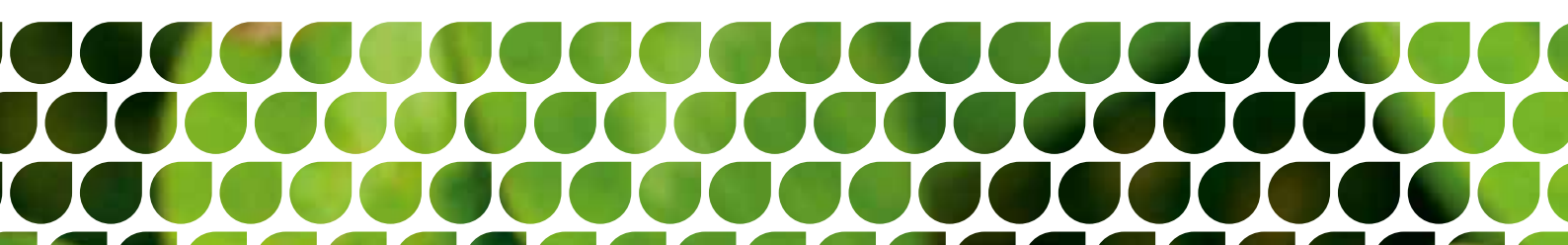


Northern Ireland



Northern Ireland is blessed with some of the most important and beautiful wildlife sites in Europe, including the stunning seabird cliffs of Rathlin Island. The seas around Rathlin are also one of the key sites for marine sponges in the whole of Europe.

Northern Ireland also holds a rich variety of freshwater and wetland habitats, from Lough Neagh – the largest lake in the UK and Ireland, and a European stronghold of the fish species pollan – to the vast wetlands at Lough Beg and Lough Erne. The arable drumlins of County Down, home to the Mourne Mountains, are a unique habitat of rolling hills interspersed with fens and loughs.

However, Northern Ireland’s wildlife faces various challenges, many of which are unique to the country. For example, some important sites for wildlife have yet to be given any protection, and many designated Areas of Special Scientific Interest (ASSIs) are in an unfavourable condition.



Light-bellied brent goose

Mike Lane

- ***We know less about species trends in Northern Ireland than in the rest of the UK.***
- ***More flowering plant species are declining in Northern Ireland (316) than increasing (288). The declining species tend to be those of open, infertile habitats.***
- ***The availability of population trends for Northern Ireland's birds is hampered by a lack of data: trends are only available for widespread species and for less than half of breeding species. Six of these 31 species are declining. Anecdotal evidence suggests that many of Northern Ireland's threatened species, including yellowhammers and lapwings are declining, and their ranges contracting. In addition, numbers of some wintering water birds are declining rapidly.***
- ***The Irish hare has declined by over 25% in 25 years¹.***
- ***In Northern Ireland, 472 species are considered endangered and are listed on the Northern Ireland Priority Species List. This includes 229 invertebrates, 137 species of plants or fungi and 106 vertebrate species².***

Measuring the state of nature in Northern Ireland

The main *State of Nature* report gives an overview of how wildlife is doing across the UK. Here we concentrate on Northern Ireland. Due to a lack of suitable data, we were only able to present quantitative trends for about 5% of the UK's species, and when we look at a smaller scale, the problem becomes even greater. Of the whole of the UK, we know least about changes in Northern Ireland's nature and there are many species and taxonomic groups for which we have no Northern Ireland-specific information on trends. UK-wide monitoring schemes often do not have the sample size needed to allow a breakdown of results at a Northern Irish level.

Many of the trends seen at the UK level will hold true for Northern Ireland, so please refer to the main UK report for species not discussed here. That said, of the four nations, Northern Ireland is likely to diverge most from the UK overview, both because it is part of a separate island and because fewer data were available to contribute to the overall analysis. Whilst the headlines here give an idea of trends for groups where Northern Ireland-specific information is available, caution should be used in drawing wider conclusions about the state of Northern Irish nature from this evidence. As elsewhere in the UK, one of our strongest messages is that we need to know more about how nature is faring in Northern Ireland.

Given these constraints, rather than attempt a lengthy overview of nature in Northern Ireland, we will briefly highlight the importance of four special habitats, as well as a few measures of change in its wildlife.

Several of the large datasets used in the main *State of Nature* report also provide country-specific assessments. Northern Ireland-specific population trends, covering a period of up to 50 years, were available for flowering plants³, and some birds^{4,5} and were used to derive the headlines (left). The same rules were used to allocate species into trend categories as in the main *State of Nature* report. These rules, as well as details of the datasets and analysis methods used, are given in the methods section in the main report.



Northern Ireland's wildlife faces various challenges, many of which are unique to the country.



Farmland



Andy Hay

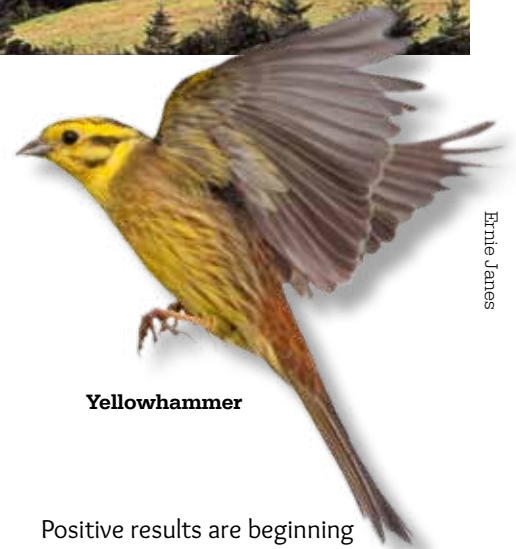
Farmland in County Fermanagh

Fnclosed farmland accounts for around 44% of land in Northern Ireland. Pastoral farming dominates the agricultural landscape and much arable land has recently been converted to improved grassland⁶. This change from mixed farming to more intensive monocultures has resulted in a loss of diversity.

A partial move from spring-sown cereals to winter sowing also means that less over-wintering stubble is available as a food source for seed-eating farmland birds. To make matters worse, herbicide use has increased over recent decades, leading to significant reductions in arable wildflowers, which are an important source of food⁷.

Across the UK, seed-eating birds, such as reed buntings, tree sparrows and linnets, have been in serious decline since the 1970s⁸. In Northern Ireland alone, yellowhammers declined by 65% in the 1990s⁹.

Agri-environment options have been developed to combat both the loss of mixed farming and the reduction in over-wintering stubbles. These options include providing wild bird cover, rough grass margins, conservation cereals, retained winter stubbles and hedgerow management, and are designed to provide seed-eating farmland birds with suitable breeding habitat and food throughout the year.



Ernie James

Yellowhammer

Positive results are beginning to emerge from farms using such agri-environment options. Seed-eating birds have increased in abundance on farms that use arable options, and yellowhammers increased by 79% on farms where agri-environment options were accompanied by bird-friendly management advice¹⁰.



Irish hare

John Hayward (Photoshot)

Changes to the farmed landscape are thought to be responsible for the 25% decline in numbers of the Irish hare, a subspecies of the mountain hare found only in Ireland¹. For example, the loss of hedgerows and rough pasture leave fewer daytime resting places, and the increased mechanisation of farming and higher stock densities mean more disturbance. Over-hunting may also have played a part in recent declines¹¹.

Marine

With over 650 km of coastline, Northern Ireland has a close connection to the sea, which is home to an amazing variety of marine life, including species that are found nowhere else on the planet. Its location straddles the junction where warm southern ocean water and cooler northern ocean water merge – here the southern ranges of sub-Arctic species like the alga *Porphyra miniata* meet the northern ranges of subtropical species like the rare red alga *Atractophora hypnoides*.

Although Northern Ireland's seas hold a huge diversity of species, many of them are struggling, including the harbour porpoise. This mammal is widespread around the British Isles, but it has declined by around 25% in the last 50 years, due to entanglements and drowning in fishing gear¹². Northern Ireland recently saw the first UK Special Area of Conservation designated for this species, a milestone worth celebrating.

Not all of Northern Ireland's rich marine life is as easy to see as the harbour porpoise – many species are hidden beneath the waves. Vast beds of horse mussels form a living reef, creating a diverse and highly productive habitat. More than 272 species have been recorded living there, including the

variegated scallop *Chlamys varia*, the sea squirt *Pyura microcosmus* and the sea cucumber *Thyonidium drummondi*^{13,14}.

Sadly, many of Northern Ireland's mussel beds have been damaged by fishing practices such as trawling for scallops, and disturbance from aggregate extraction and boat moorings¹⁴. Since horse mussels are slow to reproduce (most horse mussels in Strangford Lough are over 20 years old), the beds will take time to recover. They are also highly sensitive to sea temperature and pH, making them vulnerable to climate change¹⁴.

Beds of inter-tidal eelgrass (*Zostera*) can be found at several of Northern Ireland's estuaries. They provide nursery areas for many marine species, stabilise sediment and play a part in nutrient cycling. *Zostera* beds are also important foraging areas for brent geese, and Ireland provides the winter home for the majority of light-bellied brent geese that breed in the east Canadian High Arctic. Internationally important numbers of these geese visit loughs in Northern Ireland, including Foyle and Strangford, each year¹⁵, and their distribution closely matches that of the *Zostera* beds.

In the 1930s, a wasting disease caused by the slime mould *Labyrinthula zosterae* and a fungus decimated seagrass beds



in Europe and North America, leading to a global decline in brent geese¹⁶. Today, eutrophication, disturbance from dredging and other fishing practices, and competition from invasive species such as *Spartina anglica* all threaten *Zostera* beds.

However, surveys of the beds have been undertaken in Northern Ireland since the 1970s and no significant changes in condition were found between the two most recent assessments, in 2003 and 2009–2010¹⁷.



Semi-natural grassland

Case study

Breeding waders



Curlew

Richard Reynolds

Northern Ireland once supported important populations of breeding waders on its wet grassland and peatland habitats. In 1987, a survey found that breeding curlew and snipe populations in Northern Ireland represented 10% of the overall UK populations and 14% of the Irish populations²¹. However, when the populations were resurveyed in 1999, the numbers of curlews, lapwings and redshanks had declined by more than 50%, and snipe by 30%²².

The loss of peatland habitat, drainage, afforestation and changes to grassland management are likely to have caused the declines²¹. Agri-environment options are now available to help breeding waders, including fallow plots and breeding sites for lapwings and other waders, but their impact on the target bird populations has yet to be assessed.

A large proportion of Europe’s purple moor grass and rush pastures can be found in Northern Ireland, particularly in lowland areas with poorly drained soils and high rainfall. The habitat supports important populations of many species, including the skylark, reed bunting, Irish lady’s-tresses and marsh fritillary butterfly^{1,18}.

Purple moor grass and rush pasture is being lost through conversion to improved grassland by drainage, reseeding and fertilisation¹⁹. Some areas have also been converted to commercial conifer plantations. These changes are thought to be responsible for the decline in specialist species, such as pennyroyal and Irish lady’s-tresses^{1,20}.

Lough Beg is one of the largest remaining interconnected areas of lowland wet grassland in Northern Ireland and holds one of the biggest intact areas of purple moor grass and rush pasture in the UK.



Marsh fritillary butterfly

Martin Warren (Butterfly Conservation)

Not only is it of national importance for its communities of breeding waders, plants and invertebrates, it is of international importance for wintering and passage wildfowl.

Numbers of breeding curlews, lapwings and redshanks in Northern Ireland declined by more than 50% between 1987 and 1999.



Lough Beg

Andy Hay

Upland



Cattle grazing on blanket bog

Upland habitats make up the largest tracts of semi-natural habitat in Northern Ireland, covering 13% of the land area^{6,23}. Of Northern Ireland's peatlands, 85% are blanket bog and most are still capable of forming peat²⁴.

These damp, colourful bogs support an array of special species, including the marsh honey fungus *Armillaria ectypa*, Geyer's whorl snail and yellow marsh saxifrage.

Bogs in Northern Ireland are subject to a number of threats. The most severe is overgrazing by sheep, which in turn often leads to poaching and peat erosion, which exacerbate the problem.

Management intended to improve grazing conditions, such as draining and burning, exacerbates the problem, degrading the habitat even further and affecting its ability to recover, due to the loss of "engineering" species like sphagnum mosses²⁵.

The land around Dungonnell Reservoir in County Antrim contains one of the best examples of intact blanket bog in Northern Ireland. However, overgrazing has left the site in an unfavourable condition so it is hoped that reducing grazing pressure will allow the blanket bog to recover, increasing water quality and retention, carbon storage capacity and habitat quality for wildlife.

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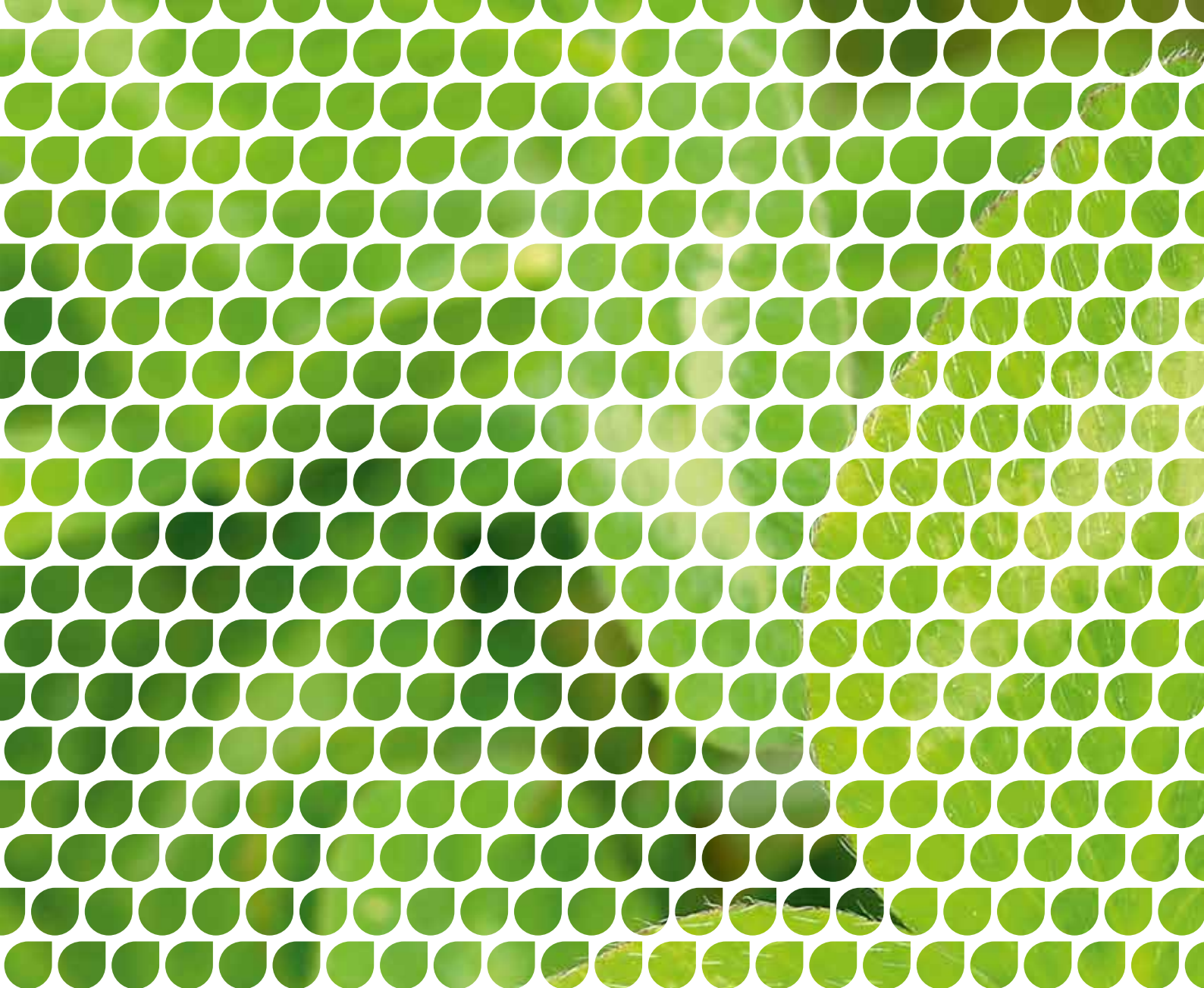
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