

Protecting Our Environment:

Nature

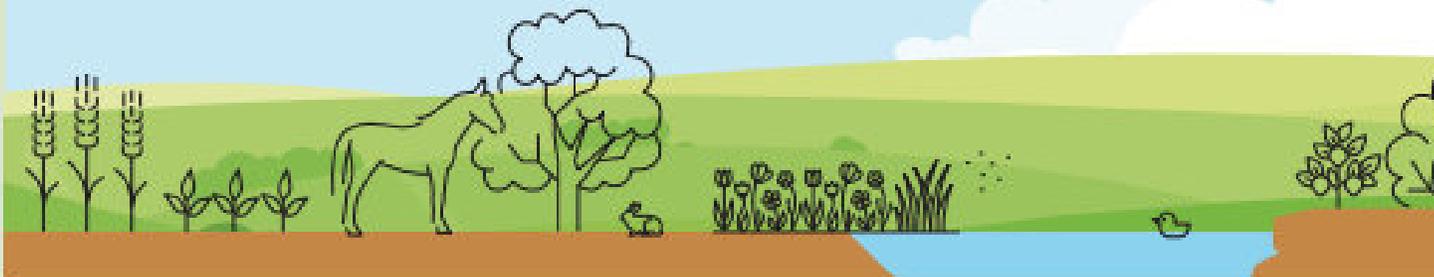
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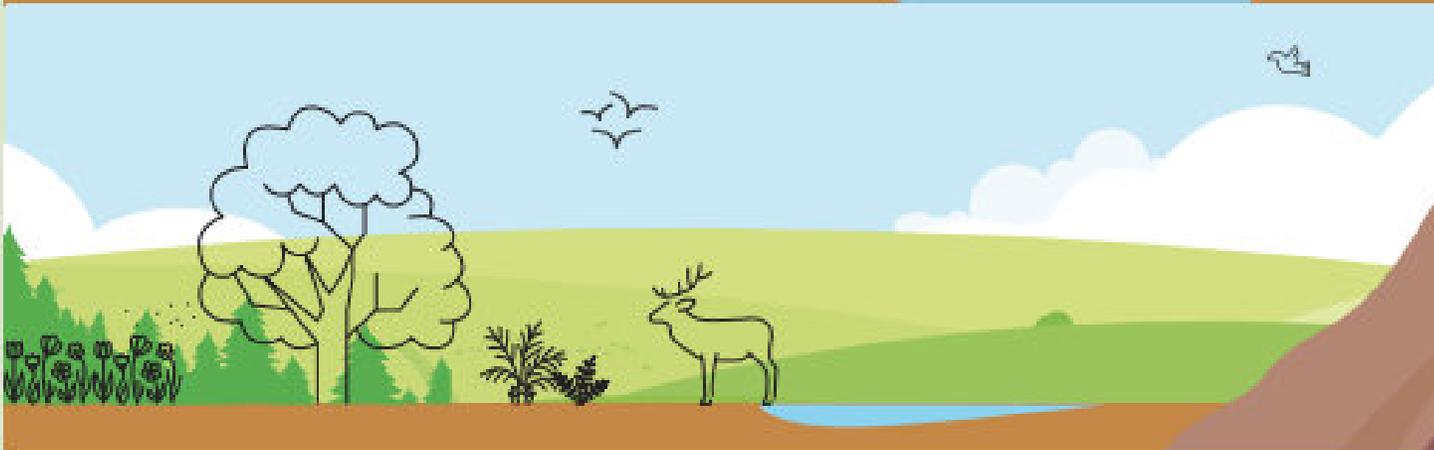


Provisioning services



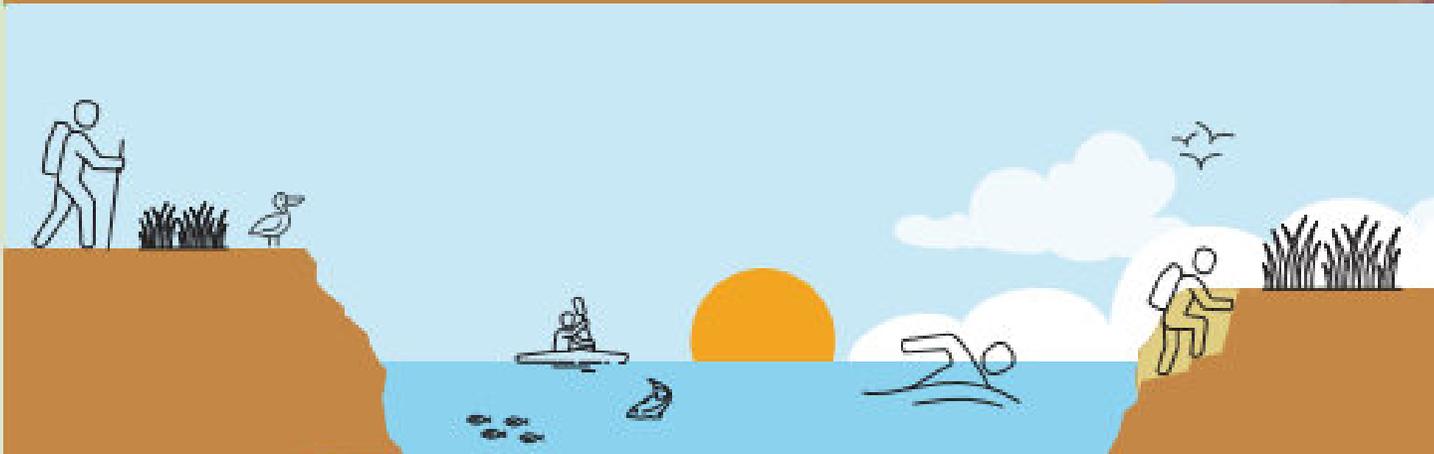
- Crops, soil fertility
- Livestock
- Timber
- Fibre
- Wild foods (e.g. mushrooms, berries)
- Fisheries
- Genetic resources, medicines
- Fresh water
- Clean air

Regulating services



- Pollination
- Temperature regulation
- Carbon sequestration and storage
- Pest regulation
- Erosion regulation
- Flood regulation
- Water purification
- Air purification

Cultural services



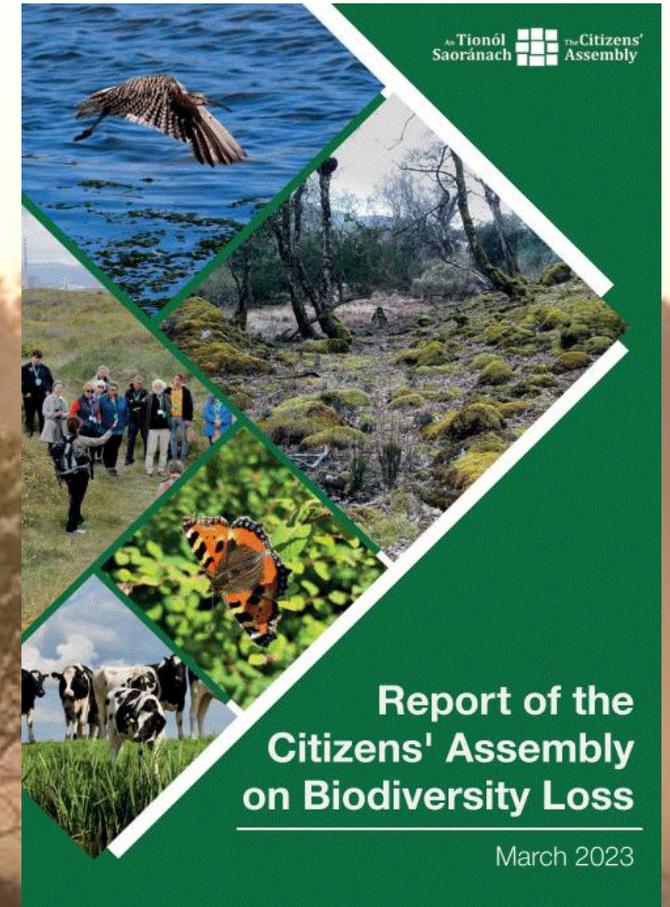
- Recreation (e.g. swimming, hiking, skiing)
- Aesthetic (e.g. sceneries)
- Cultural identity

National Biodiversity Emergency

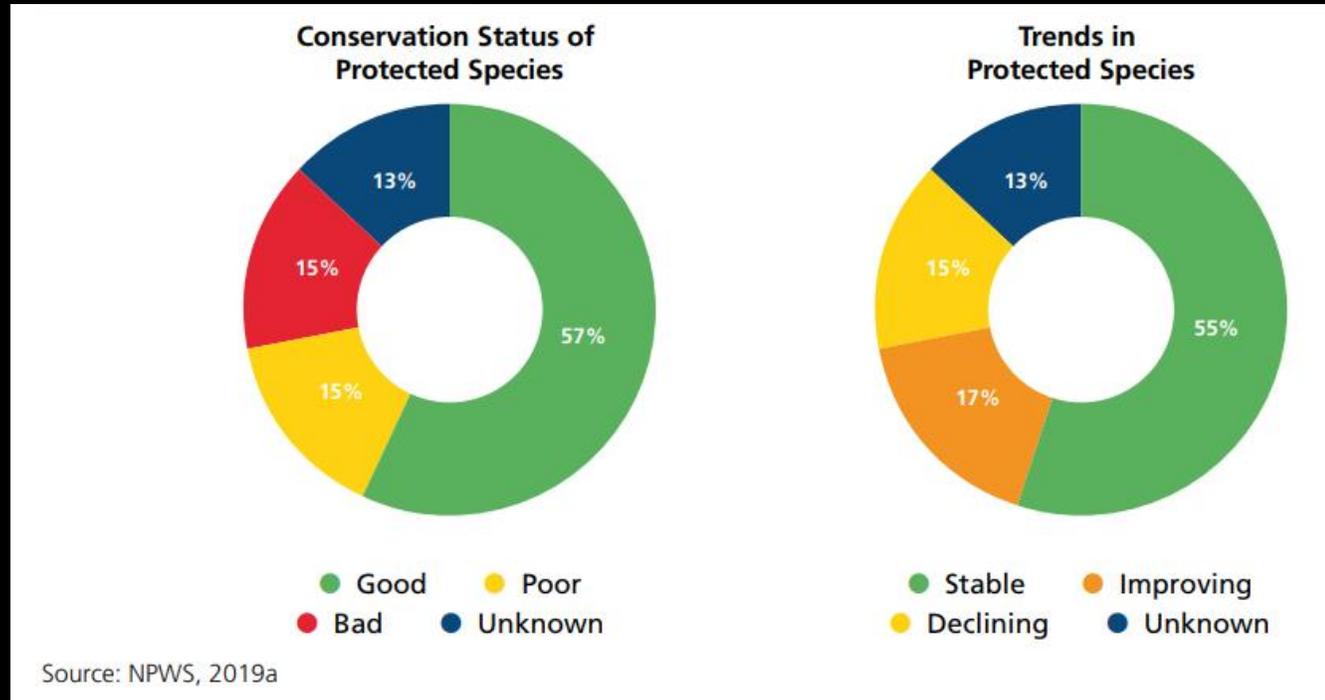
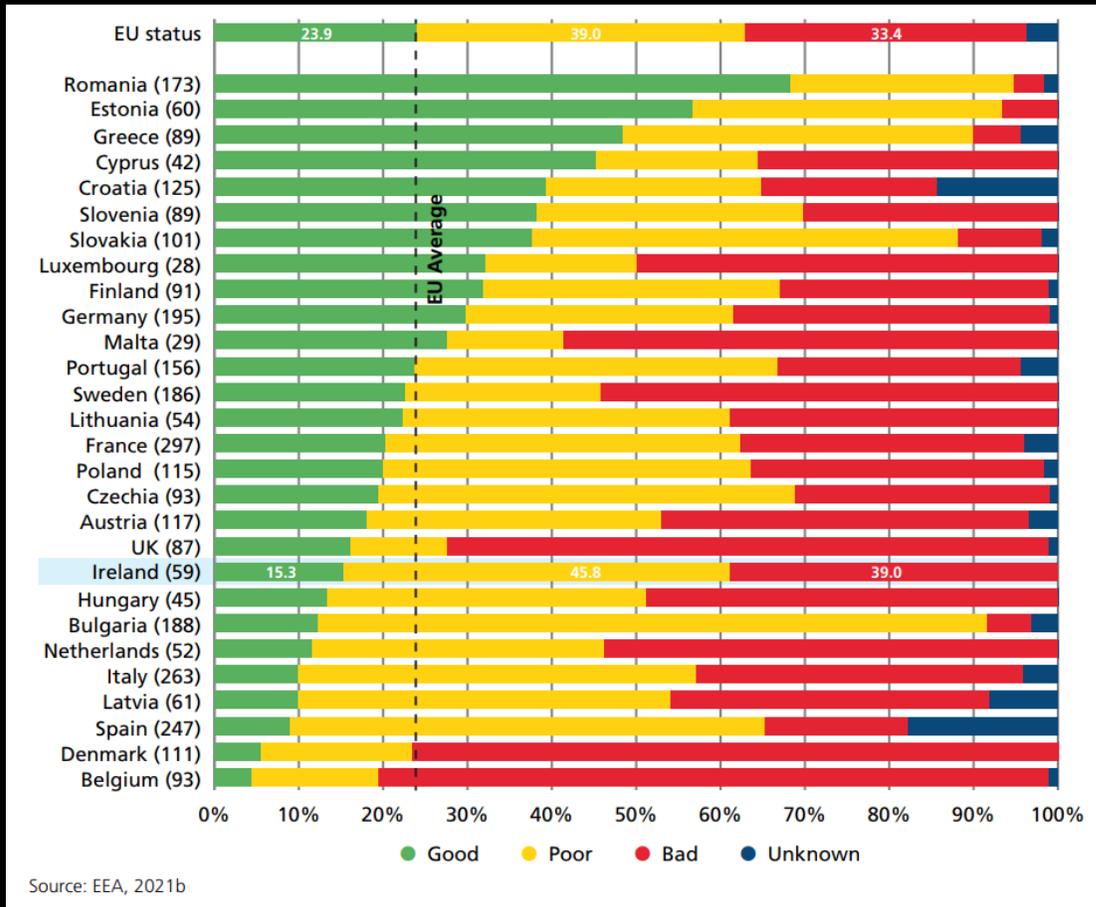
National Citizens' Assembly on Biodiversity Loss

– 159 recommendations

‘states failure to address biodiversity loss, particularly with the lack of implementation and enforcement of national biodiversity legislation’

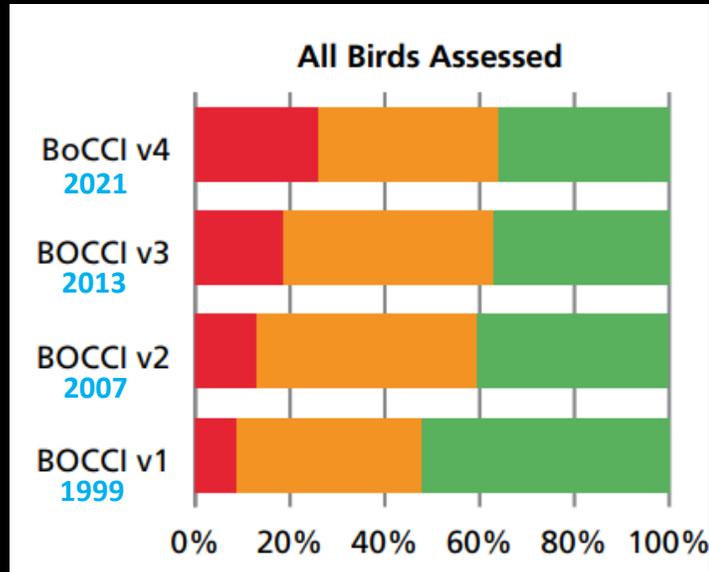


The status of protected nature in Ireland



- Article 17 and Article 12 reported in 2019
- next update 2025

The status of biodiversity in Ireland – what we know



Birds of Conservation Concern in Ireland (BoCCI)



- 26% of the 211 species assessed on the Red List, meaning that they are of high conservation concern
- Particularly affected are breeding waterbirds, and birds that use upland and farmland habitats

Botanical Society of Britain and Ireland (BSBI) Plant Atlas for Ireland



- More than half of Irish native plant species (56%) having declined in range or abundance or both.
- Many of the habitats that Irish wild plants depend on have been removed or altered by farming and forestry since the 1950s.
- Re-seeding, over-fertilising, nitrogen deposition, herbicides, drainage and changes in grazing pressure



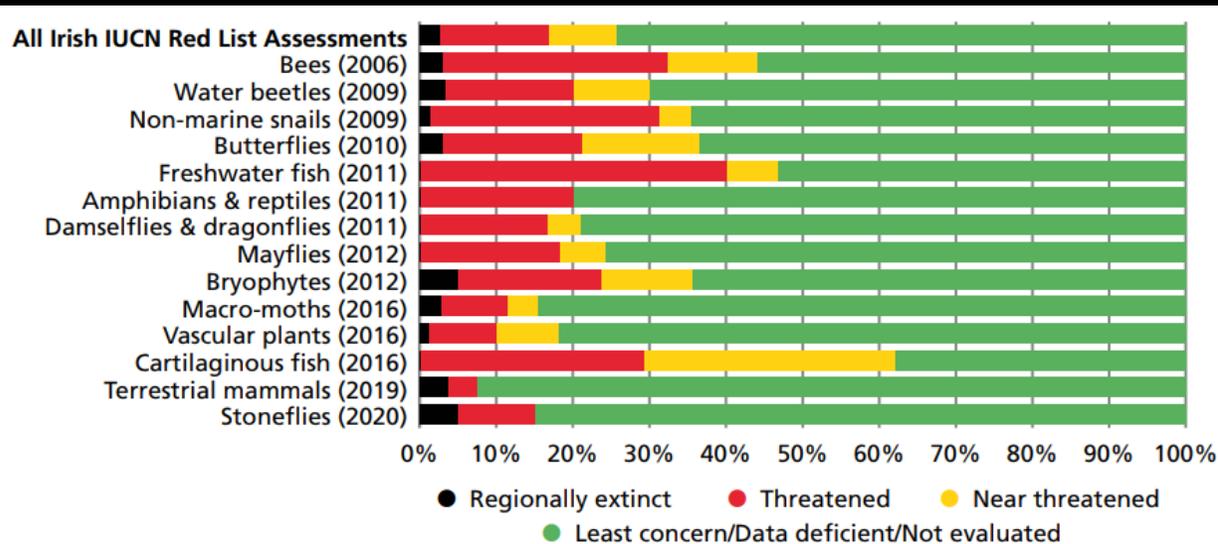
The status of biodiversity in Ireland – what we know

It is estimated that our island has at least **31,000** species.

Only **10%** (~3,000) of these have had their conservation status assessed.

International Union for Conservation of Nature (IUCN) Red List assessments of species completed up to 2020;

- 433 (14%) are threatened with extinction
- 273 (9%) are near threatened with extinction
- 82 (3%) species assessed are now extinct



Source: Data sourced from published reports at www.npws.ie/publications/red-lists



Andrew Kelly

Threats to nature and biodiversity

INDIRECT DRIVERS



Consumption



Demographic



Governance



Economy



Technology

PRESSURES



Fishery



Agriculture



Energy



Peat Mining



Infrastructure



Forestry



Tourism

DIRECT DRIVERS



Pollution



Overexploitation



Climate change



Habitat loss and degradation



Invasive Species

5 main threats

- Land use change
- Over-exploitation
- Pollution
- Invasive alien species
- Climate change

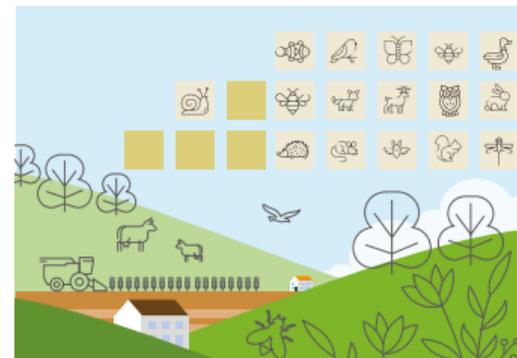
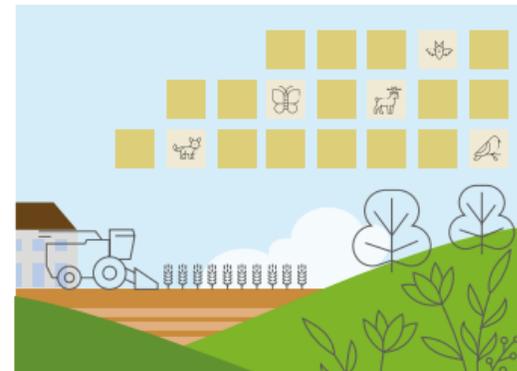
Land cover and land use change

Changes to, and intensification of, land

- the loss, removal or neglect of hedgerows, stone walls, rough grass areas, ponds, wetlands and scrub.
- while practices such as land drainage and fertiliser and pesticide application although local in extent, reduce space for nature

Fragmentation of 'wild' spaces

- loss of habitats reduces the space and connectivity needed for viable and sustainable species populations
e.g barriers in rivers



landscape

- Low biodiversity -> biological pest control missing, pollination deficit
- Heavy dependence on agrochemicals
- Susceptibility to erosion and nutrient leaching -> increased pollution of groundwater and waterbodies
- Lower soil biodiversity -> poorer soil health
- Less carbon stored and sequestered
- Larger vulnerability to extreme weather events
- Unsustainable in long term

Agricultural landscape with diverse landscape elements

- Higher biodiversity -> possibility to count on biological pest control, improved pollination
- Decreased dependence on agrochemicals
- Resistance to erosion, decreased nutrient leaching
- Higher soil biodiversity -> improved soil health
- More carbon stored and sequestered
- Increased resistance to extreme weather events
- Sustainable also in long term



Over-exploitation

- **A major driver of nature and biodiversity loss**
- **Peat harvesting**
 - The Irish Peatland Conservation Council estimates **77%** loss in peatland habitat
- **Land exploitation**
 - Fluet-Chouinard et al. (2023) estimated that Ireland had lost up to **90%** of its wetlands (peatlands included) since 1700
- **Marine fish stocks**
 - Declines in **spawning stock biomass**, which is directly attributable to overexploitation in the 1970s, 1980s and 1990s.

A wide, flat landscape, possibly a coastal plain or a large field, with a body of water in the distance. The sky is clear and blue. The foreground is a mix of green grass and brown earth. In the background, there are some low hills or mountains.

Pollution

Air pollution & Water pollution

- Deposition has consequences for associated sensitive species and biodiversity, namely our butterflies, bees, other insects and birds.
- The loss of high-quality habitat, e.g., unpolluted rivers
 - plants, invertebrates, fish and birds.

Alien Invasive Species [& pathogens]

These non-native pest species can have a negative impact on our:

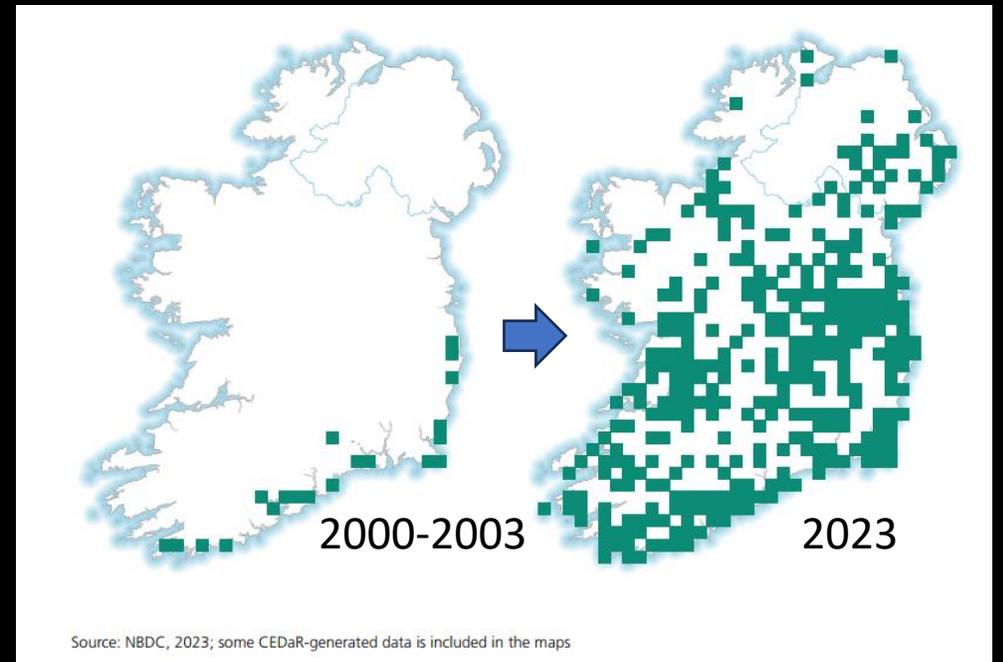
- **Economy** – €400 billion globally (2019)
- **Native wildlife** – competition
- **Habitats** – space for natives



Climate Change

- Geographical range of many of our native species likely to change
- Further aid the spread of invasive species and the associated negative consequences of native species' decline
 - Increase habitat degradation and fragmentation
 - Increase the intensity, magnitude and frequency of fires, floods, storms and periods of drought

The UN estimates that 8-41% of species are at risk of losing half their habitat owing to increasing temperatures.



Global and European policies, plans and programmes for nature

GLOBAL

UN Convention on Biological Diversity
UN Sustainable Development Goals

REGIONAL

EU Biodiversity Strategy to 2030
Birds Directive
Habitats Directive
Water Framework Directive
Nitrates Directive
Marine Strategy Framework Directive
EU Nature Restoration Law
OSPAR Convention

NATIONAL

Nature: National Biodiversity Action Plan, Wildlife Act, Oireachtas Joint Committee on Environment and Climate Action
Climate: Climate Action Plan, Climate Act
Agriculture: Common Agriculture Policy Strategic Plan
Forests: Forestry Programme 2023-2027, Forest Strategy, Forestry Act
Water: River Basin Management Plan, Nitrates Action Programme
Oceans: Proposed Marine Protected Areas Bill
Biodiversity: National Citizens' and Young People's Assemblies
Local: County Council Biodiversity Actions Plans etc

Source: Adapted from NPWS, 2024

National Policy and Action

- The plan is an all-of-government document and sets out the national agenda for protecting and restoring biodiversity for the period 2023-2030.
- Key objectives in the plan include:
 - adopt a whole-of-government, whole-of-society approach to biodiversity
 - meet urgent conservation and restoration needs
 - secure nature's contribution to people
 - enhance the evidence base for action on biodiversity
 - strengthen Ireland's contribution to international biodiversity initiatives

The objectives are underpinned by **194 actions** supported by indicators.

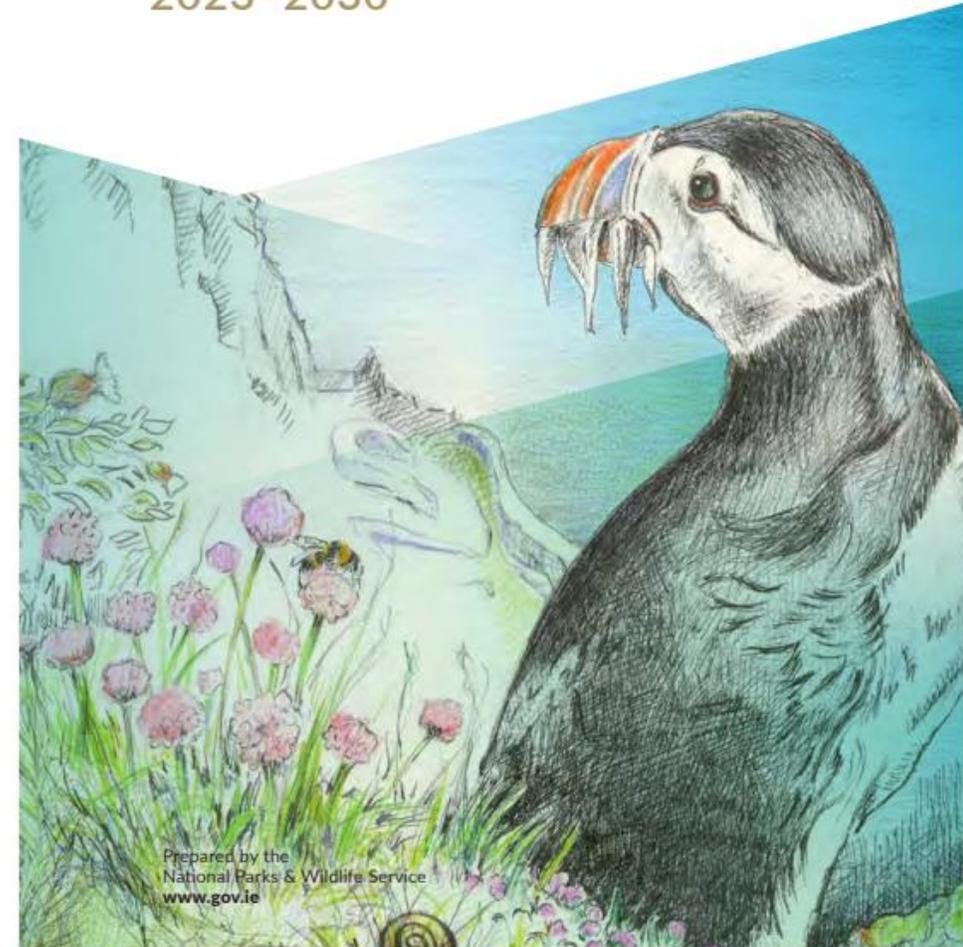
The plan also takes account of EU and international biodiversity strategies and policies and relevant national policies.



Rialtas na hÉireann
Government of Ireland

Ireland's 4th National Biodiversity Action Plan

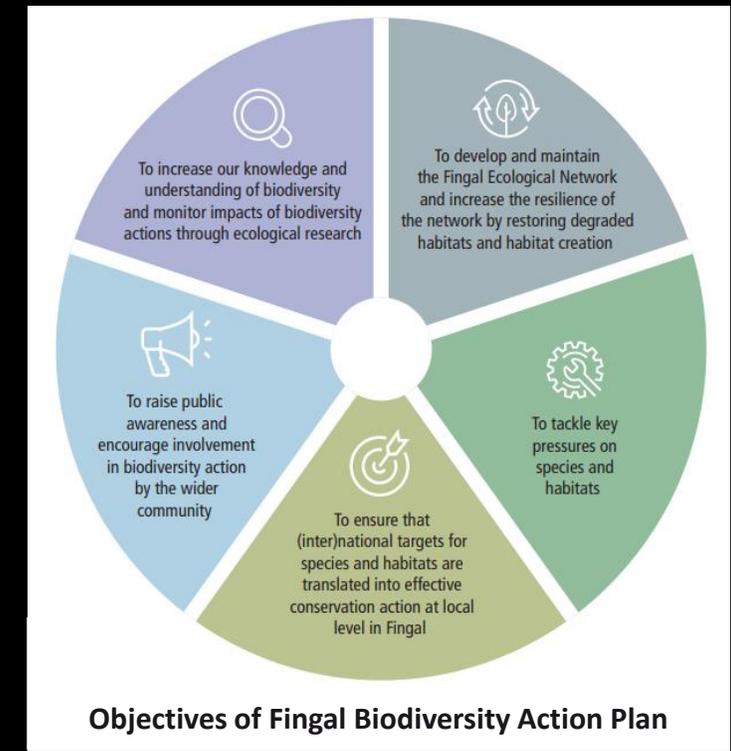
2023-2030



Prepared by the
National Parks & Wildlife Service
www.gov.ie

Action plans for nature

- Expansion of Ireland's national parks
- All-Ireland Pollinator Plans 2015-2020 and 2021-2025
- EU LIFE projects, e.g.,
 - Corncrake LIFE project
 - Kerry LIFE Freshwater Pearl Mussel
- European Innovation Partnerships
- Local authority biodiversity officer programme
- Agri-Climate Rural Environment Scheme
- Peatlands Climate Action Scheme
- Business for Biodiversity Ireland
- National Biodiversity Data Centre & citizen science
- Forestry Programme
- ...and many more



Implementation is key

- Highest number of corncrake territories (233) recorded this year in 25 years, up 45% since 2018
- The Corncrake LIFE project areas have recorded a 35% increase in birds since it began in 2021
- The involvement of the farming community is key to success, with 250 farmers and landowners now managing close to 1500 hectare of lands for corncrakes
- Despite increases the birds remain **vulnerable and at risk.**



Chapter 7: Nature



1.

The Irish landscape is heavily modified by humans. Many of the few remaining natural and semi-natural habitats are in a poor or bad state. Research in Ireland highlights that 85% of our protected habitats and almost one-third of our protected species of flora and fauna are in unfavourable status, over half our native plant species are in decline and more than 50 bird species are of high conservation concern. The leading causes of these declines are changes in agricultural practices, including intensification; pollution; the increasing spread of invasive species; and our changing climate.

2.

Our natural habitats and biodiversity have been squeezed to the margins of our landscape and policies, while food production and economic development have been prioritised. However, nature underpins our food production, food security and economic development. We risk our future if we continue to marginalise nature, and its protection, and fail to deliver adequate, achievable, impactful, evidence-based and coordinated action to protect and restore it.

3.

Biodiversity loss affects everyone. It is essential that nature protection, enforcement, management and restoration are mainstreamed across government, social and economic sectors and are fully considered at all levels of national, regional and local decision-making.

4.

Nature can recover if given the opportunity. For example, Ireland's corncrake population has risen by more than 35% in recent years, reflecting the outcome of a multi-million euro conservation investment that began in 2019. Positive actions to halt declines and to restore the key elements of our natural world must be implemented.



Acknowledgements

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