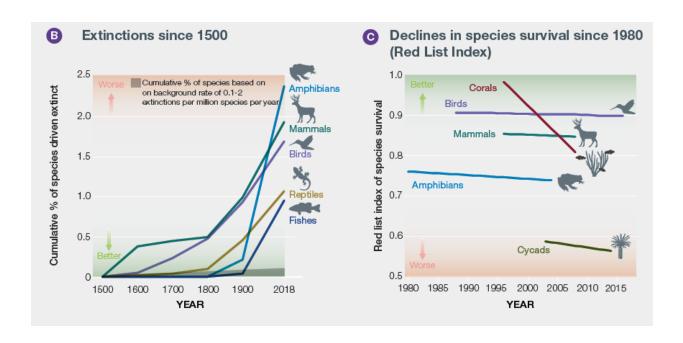


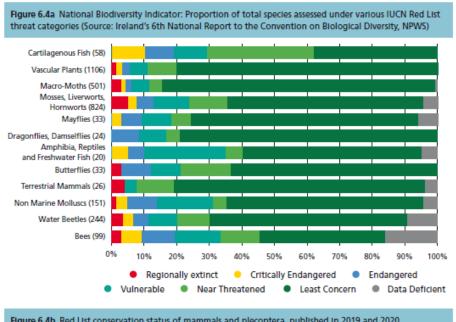
Space for Nature

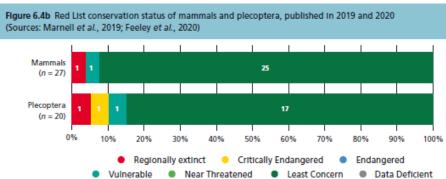
Introduction and context

Biodiversity loss and what it means for us: We are living through a sixth mass extinction. Nature is experiencing an unprecedented and dangerous decline, with species extinction rates accelerating, and a currently insufficient global response. About a million species are currently threatened with extinction and transformative changes are needed to restore and protect nature. In Ireland there has been a rapid decline in the populations of thousands of species over recent decades, some of which have not even been identified, and biodiversity loss is likely to get worse as a result of climate change. The 2019 IBPES global assessment report declared that the great majority of indicators of ecosystems and biodiversity are showing rapid decline and warned that the loss of biodiversity, including genetic diversity, would undermine the resilience of many agricultural systems, and the ecosystem services that regulate air, water and soil quality. Overfishing, overexploitation of natural resources via harvesting, logging and hunting is having the largest impact, with agriculture having the largest single impact on the terrestrial land surface.



What does the IPBES assessment mean for Ireland? Dr. Liam Lysaght of the National Biodiversity Data Centre comments:





Around 31.000 species are known to occur in Ireland. yet the conservation status of only about 10% has been assessed. This means we have a fundamental knowledge gap in how biodiversity is changing in Ireland. But what we do know is:

- Of the species that have been assessed, one in every five species is threatened with extinction here.
- One in every third species of bee is threatened with extinction.
- The conservation status of one third

of our habitats afforded legal protection under the EU Habitats Directive disimproved between 2007 and 2013.

- 37 species of bird are of high conservation concern, including species such as curlew, hen harrier, twite and yellowhammer. The corn bunting has become extinct since around 2000 and the once widespread corncrake is just lingering on in the western extremities of counties Donegal and Mayo.
- Three of our iconic fish, the Atlantic salmon, European eel and angel shark have suffered catastrophic population declines, and the freshwater pearl mussel, Ireland's longest living animal, is facing extinction.

- Our native white-clawed crayfish is threatened with the recent arrival of the crayfish plague.
- Everyone who have worked or walked in the countryside over the last 30 or 40 years will attest to a huge reduction in the biomass of insect life. Our fields have fallen silent; now hedgerows and patches of scrub are under attack like never before.
- Nature conservation continues to be chronically under-funded by Government.



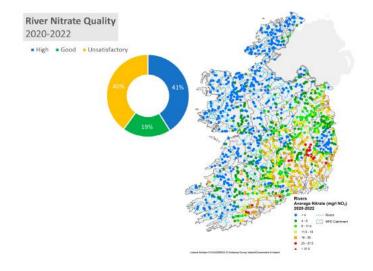
Natural grassland in the West of Ireland

Healthy ecosystems: An ecosystem is composed of plant and animal communities and the physical environment in which they live. A healthy ecosystem is one that is intact in its physical, chemical, and biological components and their interrelationships, such that it is resilient to withstand change and stressors. It is a system that is not experiencing the abnormal growth or decline of native species, the concentration of pollutants and chemicals, or drastic human-caused changes to its landscape or ecological processes. A healthy and diverse ecosystem is one that provides abundant and beneficial services to its constituents, such as food, water, shelter, economic livelihood, recreation, and natural beauty.



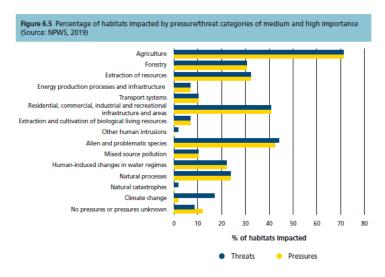
Nature based solutions: Nature-based solutions leverage nature and the power of healthy ecosystems to protect people. optimise infrastructure and safeguard a stable and biodiverse future. The IUCN have developed principles for NbS. Examples of NbS include: mangrove restoration to improve coastal resilience against storm surges, forest and woodland regeneration for carbon sequestration, and flood management approaches that don't involve hard infrastructure but leave undeveloped (unsealed) land for surface run-off, and managed wetlands to support biodiversity and water purification.

Wilding, rewilding and natural regeneration: Ireland has hardly any wild areas left, and just 2% of our forested areas are native woodlands (11% of Ireland's land area is under forestry but that is mostly monoculture commercial plantations). *Ecological restoration* involves interventions that aim to return severely degraded ecosystems to a former ecological state, restoring its ecosystem function. *Rewilding* gives wildlife and natural processes the space and time to recover to increase ecological resilience, with the focus on process rather than a desired outcome. Both approaches represent a managed withdrawal of direct human management of nature (depending on the scale of the area, i.e., small farmland areas, for example, may require much more intervention to replace the ecological processes that require large areas of land to operate naturally). There is now a growing discussion among conservationists about the need to restore and rewild degraded ecosystems by leaving land free from livestock and by preventing deer from getting access to areas under rewilding/ regeneration.



The role of agriculture in driving biodiversity loss in Ireland: With almost 75% of Ireland's land area devoted to agriculture and forestry, these sectors have an enormous influence on biodiversity. The EPA's most recent assessment report found that agriculture was the single biggest pressure on the Irish environment. It states that agricultural practices are a 'key pressure':

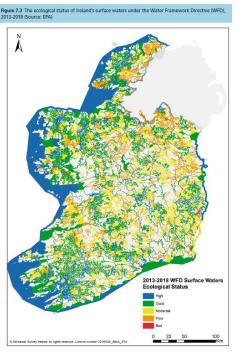
"Biodiversity is at risk because of habitat loss and damage. Unspoilt areas are being squeezed out, our pristine waters are being lost and the habitats that provide vital spaces for biodiversity are diminishing. Not enough of our seas have been designated as marine protected areas. These are all major systemic issues requiring integrated, immediate and relentless action."



Friends of the Earth supports agriculture policies which support farmers to farm in line with ecological boundaries and especially High Nature Value farming which benefits Irish wildlife. But we also need to become more resilient - we import over 80% of our fruit and vegetables into Ireland when we could be growing much of this ourselves. Agriculture is also the single largest

contributor to Ireland's overall climate impact. A third of Ireland's greenhouse gas emissions come from the sector. The average dairy farm emits three and a half times more emissions than the average for beef farms, and four times more than the average for tillage farms. Until recently, policies have relied on the uptake of voluntary on-farm efficiency measures. However, these fail to adequately address the underlying drivers of emissions: rising cattle numbers and associated nitrogen inputs

(fertiliser and animal feed).



Water quality: The EPA's 2022 Indicators Report has found that there has been no significant change in the biological quality of our rivers or lakes in 2022. The rate of decline largely matches the rate of improvement. It found that Nitrate concentrations are too high in 40% of river sites nationally and in 20% of estuarine and coastal water bodies. These elevated levels are found mainly in the south and south east and are too high to support good water quality in our estuaries. This is primarily attributable to intensive agricultural activities on freely draining soils in these areas. Most of the nitrogen in Irish waters comes from organic and inorganic fertilisers. While levels can fluctuate between years based on climate there is no indication that nitrate levels are reducing. Phosphate concentrations are too high in 28% of rivers and 36% of lakes which impacts on their biological quality. Phosphate primarily comes from wastewater discharges and from agricultural run-off in areas with poorly draining soils.

Uplands: Ireland's uplands are in a very degraded condition, due to overgrazing by sheep, burning of scrub and legacy deforestation coupled with commercial forestry plantations that now dominate upland landscapes. The Irish Wildlife Trust notes that uplands are incredibly carbon rich and the source of water for rivers that ultimately ends up for human consumption. But there is also great potential for rewilding and ecological restoration with accompanying amenity and economic opportunity in upland areas. Many uplands are within designated areas for nature



conservation, but these sites have no management plans and, with a few exceptions, still have no programmes to incentivise farmers to move to more nature-friendly practices. Many are in commonage ownership, covering roughly 440,000 hectares with substantial proportions in counties such as Donegal, Galway, Wicklow and Kerry.

Urban biodiversity: many urban areas can support a high number of plants and animals. From private gardens and local parks to river corridors and large coastal zones, urban areas provide opportunities for making space for nature by protecting and incorporating semi-natural habitats, especially those of high ecological value and mature features. Planning for biodiversity means thinking about habitat connectivity as part of ecological spatial strategies within County Development Plans. Strategic planning tools such as green belts, green wedges and green fingers can also be used to directly or indirectly protect biodiversity at the landscape-scale.

Trees: Ireland has a very low level of tree coverage, and in urban areas, even mature trees can be felled by local authorities if they are not covered by Tree Protection Orders (TPOs). There are only 164 TPOs in force in Ireland relating to areas or individual trees. Over a quarter of these relate to Wicklow alone and only 16 of the 31 Local Authorities have a record of TPOs. At the same time, Local Authorities have been cutting down thousands of trees every year. This trend is in the wrong direction. Wicklow TD Steven Matthews published a bill in May 2023 that would give greater protection to trees in urban areas and make TPOs easier to use. This is an important reform that should be supported by all parties in the Oireachtas.

Natura 2000 sites: Ireland, at 6% in 2020, had the fourth lowest proportion of total land area among the 27 EU Member States designated as terrestrial Special Protected Areas (SPA's) under the EU Birds Directive. With such a small number of designated sites, it is no surprise that bird populations are struggling. <u>BirdWatch Ireland</u>'s list of species of conservation concern from 2021 found that over half of Irish birds are in an unfavourable conservation status. Of the 211 species assessed, 54 (26%) were placed on the Red list, 79 (37%) on the Amber list and 78

(37%) on the Green list. The Citizens Assembly on Biodiversity Loss heard from experts that 85% of Ireland's protected sites under the Habitats and Birds Directives are in poor condition. These are the sites that have the highest legal protections, and that are supposed to have management plans.



Marine, coastal areas: Scientific experts warn that we need to be setting aside nearly half of the world's oceans where no fishing or extractive activities of any kind occur. This kind of scale and ambition would not only protect biodiversity but would also protect ocean carbon and secure marine food supplies. The development of offshore renewable energy projects requires a robust and properly resourced marine environment and planning framework. Threats to the

marine environment include overfishing, pollution, poorly managed aquaculture and extractive industries including sand and seaweed removal.

Wetlands and bogs: Land use in Ireland is currently a net emitter of greenhouse gases. This is due to on-going unregulated drainage of peatlands and organic soils because of agricultural activity, afforestation and the harvesting of peat. This can be tackled by reducing livestock grazing on organic soils. Rewetting degraded peatlands (through ditch blocking, for example) has demonstrable benefits for carbon sequestration, flood attenuation and biodiversity. The elimination of further GHG emissions from degraded peatlands must be a priority.



The Abbeyleix Bog Restoration project (above left) is showcased on the UN Decade on Ecosystem Restoration website here. The project stemmed from the efforts of a local action group known as Abbeyleix Residents for Environment Action (AREA), which was established in 2000 with the aim of protecting and restoring the local peatlands. The group entered into negotiations with Bord na Móna and in 2008 Bord na Móna agreed to hand over the

management of the Killamuck (Abbeyleix) Bog to the local community. Restoration work began in 2009. The group then signed a lease that allows the local community to manage the peatlands for a period of 50 years.

- Agroforestry involves deliberately integrating woody vegetation (trees or shrubs) with crops. Examples include animals grazing the understory of trees and the use of trees for animal shelter, timber and/or food production. Agroforestry has multiple benefits – for example, soil biodiversity, carbon sequestration, flood mitigation, and human and animal wellbeing are all enhanced when tree cover is stable and long term.
- Chemicals and pesticides: forever chemicals, pesticides and herbicides like glyphosate (RoundUp) pose a threat to human health and the environment.
 Glyphosate
 is poisonous and probably carcinogenic. The Irish government is still supporting its use despite the fact that we have the 2nd highest level of glyphosate in our surface water in the EU. After pressure and lobbying from industry, the EU is poised to drop its proposed ban on certain persistent chemicals in consumer products.
- Legal protections and enforcement: Local authorities play a key role in enforcing
 pollution and waste management laws but they are not resourced well enough and
 this role is not always considered a priority. The 2021 EPA report on local authority
 environmental enforcement recommended increased inspections and follow-up
 actions to reduce the impact of agricultural activities on water quality and better use of
 air monitoring data to identify air pollution hotspots and prioritise areas for action
 under the Solid Fuel Regulations.
- Access to information and public participation
- Constitutional protections and rights for nature: the 2022 Citizens Assembly on Biodiversity Loss recommended that a constitutional right to a clean environment, along with rights for nature, be inserted into the Irish Constitution. Rights to a clean environment and for nature would give citizens access to the courts to protect biodiversity.

Invasive species:



Invasive non-native species, such as the zebra mussel, grey squirrel and Pacific oyster, have displaced species naturally occurring in Ireland and damaged ecosystems. The rhododendron continues to threaten our oak woodlands, mink threaten ground-nesting birds and an increased number of water bodies are subject to crayfish plague.

Some actions we can take to prevent their introduction and spread in urban environments:

- Use native species bird seed and wildflower mix
- Prevent pets from escaping. Never release an unwanted pet into the wild. Re-home if possible or have euthanized.
- Remove invasive plants from your garden/park or at least prevent them from going to see or spreading beyond the garden
- If an invasive species is in a development site or where vehicles traverse the site, then cordon off where the invasives are, implement strict biosecurity to prevent inadvertent spread (Check, Clean etc.) and remove or control the invasives.
- Use responsible disposal for garden cuttings or pond plants Be Plant Wise
- Check purchased plants for New Zealand flatworms before planting in your garden
- Follow expert advice to prevent rhododendron (see above photo from Killarney National Park) and other invasive species like cherry laurel, Japanese knotweed from spreading.

Our pollinators are in trouble

There are over 100 different types of bee and 180 hoverflies on the island of Ireland. These are keystone species that support healthy ecosystems. Along with other creatures like moths, they provide important pollination services, helping fertilise many of our flowers, crops, and wild plants. However, a third of all bee species in Ireland could be extinct by 2030. This is mainly because we have drastically reduced the amount of food and safe nesting sites that support them.



The All-Ireland Pollinator Plan sets out <u>key measures</u> that local communities can take to help our wild pollinators including No Mow May, managing hedgerows for biodiversity, planting pollinator friendly trees, avoiding the use of chemicals, creating nesting habitats, choosing nectar and pollen rich plants for your garden, supporting existing, wild honeybees.

12 steps to give space to nature

- All developments, whether private or public, should be guided by the 'net gain' for biodiversity principle. Strategies should adopt the avoid, mitigate or compensate formula but all interventions should ensure that biodiversity is overall improved following a development.
- 2. Native woodlands and forests should be expanded dramatically to provide space for nature and ecosystem restoration alongside economic and social opportunities.
- Hedgerows are of vital importance to the Irish landscape and to biodiversity. They
 sequester carbon, provide wildlife habitat, control flooding, improve water quality, and
 improve the scenic appearance of our landscape. Hedgerows Ireland have a code
 which local authorities can sign up to setting out good practice for hedgerow
 management and planting.
- 4. Plant native trees and shrubs that support biodiversity and provide ecosystem services, even small areas planted with biodiversity in mind are vastly superior to barren landscaping.
- Local authorities must greatly expand the provision and management of public parks, open spaces, roadside verges and green areas in housing estates for biodiversity. We also need more national parks and large areas for rewilding and regeneration projects.
- Environmental enforcement and farm inspections must be increased by local
 authorities and the NPWS to ensure that biodiversity is protected and that everyone
 has access to a clean environment.
- 7. The All-Ireland Pollinator Plan should be adopted by everyone households, schools, businesses, local authorities and state agencies it has practical, easy steps that everyone can take to improve biodiversity at little or no cost.
- 8. Our water bodies are in real trouble. Agricultural intensification, inappropriate siting of commercial forestry and inadequate waste water treatment are the main threats and these problems need to be tackled head and laws enforced by government departments and the EPA.
- 9. Invasive species are a serious threat to Ireland's biodiversity. Public authorities need to do a lot more to raise awareness among key stakeholders and the public to ensure that this problem is contained and managed properly.
- 10. Wildlife corridors can be created almost anywhere, in urban and rural areas, and between urban and rural areas. Strategic planning for habitat corridors should be a key focus of county development plans.
- 11. Shifting to plant based diets is one of the highest impact actions individuals can take to reduce their climate impact, and shifting to resilient food systems at a local level community gardens, allotments and growing – will be vital. Irish growers need much greater support from government as they are under unprecedented pressure from supermarkets.
- 12. Citizen science, greater public awareness and improved ecological literacy across all demographics will be central to reversing recent trends. The government must provide greater support to environmental education in schools, communities and via environmental NGOs so that everyone has the opportunity to learn about and participate in nature conservation.

10 Things local authorities must do

- Each local authority should have at least one full-time dedicated biodiversity officer, the total number of which should be determined by population density, land mass and coastline.
- 2. Local authorities are uniquely placed to deliver biodiversity projects on roadside verges, open areas in housing estates, medians and linear parks. Biodiversity funding and staff resources in local authorities must be significantly increased.
- 3. Biodiversity should be given greater <u>priority</u> in the councils' activities with clear budget lines, adequate resourcing and transparent reporting.
- County development plans should have strategic ecological networks and green infrastructure to the core with plans to expand green belts, green<u>wedges and fingers</u> that link the countryside to towns and cities.
- 5. Environmental inspections and enforcement of air and water pollution, litter, waste management and dog fouling must be increased significantly.
- 6. Training for local elected members should include modules on ecology, green design and biodiversity protection.
- Local authorities should be required by law to provide land/sites for community gardens and allotments in both urban and rural communities and to plant native species in their landscaping plans.
- 8. Public parks, <u>pocket forests</u> and playgrounds should be dramatically increased on a per capita basis and especially in areas of high density and low income housing. Though likely out of date, a 2000 *Irish Independent* article found that there are twice as many golf courses in Ireland compared with playgrounds.
- 9. Local authority climate adaptation plans must emphasise the benefits of nature based solutions for the expected climate-induced heavier rainfall, flooding and droughts by limiting soil sealing around new developments as much as possible and providing for run-off and drainage solutions that enhance biodiversity and water conservation (such as constructed wetlands and grey water recycling).
- 10. Development plans should increase mandatory requirements for a percentage of green spaces that support biodiversity in urban areas. Each Local Authority should include a Green Infrastructure Strategy in County/City Development Plans to provide for corridors between urban and rural biodiverse habitats, creation of new biodiverse spaces and restoration of degraded biodiversity.

7 Things communities can do



1.Hold onto every bit of green space in your community: every area under a roof, a hard landscaped area, paved or tarmacked, or covered in plastic is an area that rainwater runs off of. This then means that the water has no soil to drain down into or be absorbed by plants and accumulates instead together to cause floods. This will be an increasingly important issue as the climate changes and rainfall events become more

extreme. It is vital that we hold onto the few natural green spaces left around houses and housing estates, and increase the amount of natural green spaces in cities and towns.

- Avoid using <u>wildflower mixes</u> based on non-native seeds. There is a huge risk of accidentally bringing in invasive species like <u>Black grass</u> that, if spread, would be devastating to Irish farming. By simply reducing mowing, amazing wildflowers like
 - Dandelion, Clovers, Self-heal and Bird's-foottrefoil naturally pop-up year after year at no cost. These common flowers provide the nutrients our insects need.
- Biodiversity <u>meadows and margins</u> can be created from scratch following the guidelines in the All-Ireland Pollinator Plan. The pollinators ie website has lots of <u>resources</u> to support communities taking action for biodiversity.
- 4. Sports clubs should avoid using chemical pesticides and <u>artificial grass</u> and surfaces that may leach microplastics into the environment.



Pollinator-friendly planting at the main roundabout in Buncrana



5. Consider planting an <u>orchard!</u> They don't require a large site, just a bit of unused land, elbow grease and native fruiting trees. This example below is from Woodstown Village in South County Dublin where the volunteers cleared a small site and planted it with 50 fruiting trees.

If you have lots of apples of your own that get wasted as windfalls, consider drying the apple rings to preserve them, making cider, bringing them to an <u>apple pressing event</u> to juice them in bulk.



6.Communities can play an important role in improving water quality and protecting rivers by setting up River Trusts that act as guardians of local water bodies, watching out for problems and working with stakeholders to develop solutions and celebrate our rivers.

7. Ponds are extraordinary reservoirs of biodiversity and have a critical role as Ireland faces our significant biodiversity loss. Over 50% of Ireland's amphibian wetlands have been lost to drainage, industrial peat extraction, pollution and natural senescence in the past 100 years. Of



the 12,200 small enclosed water bodies across Ireland, 8,000 are less than a hectare in extent and the smallest categories have been subject to the greatest pressures. Ponds have been demonstrated to host more biodiversity than rivers and lakes, particularly macroinvertebrates and less common species (¾ of all freshwater species!). Permanent and naturally vegetated ponds are excellent at carbon sequestration. Other studies have found that small ponds sequestered 20-30 times the amount of carbon compared with

woodlands, grasslands and other habitats. An Taisce has produced a <u>comprehensive guide</u> to pond creation for gardens, community shared areas, and local authorities.

5 Things businesses can do

- Businesses need to act in support of biodiversity too. All companies should sign up to support the <u>Sustainable Development Goals</u> and larger companies should assess their overall biodiversity impact and draw up plans to ensure a net gain for biodiversity across their business and supply chains.
- Employers should support projects that improve biodiversity in their local communities. Local business can be anchor supporters of local environmental initiatives as funders and champions.
- SMEs and larger companies should all have 'green teams' that coordinate environmental and climate awareness and actions across the company. Check out LinkedIn's Green Teams hub here.
- Larger companies will soon be required to report transparently on their own climate and biodiversity impact under new<u>EU directives</u>. These reports are also part of a company's social licence to operate: they should demonstrate that business is doing its fair share of effort to achieve net zero emissions and no significant harm to the environment across its entire supply chain.
- Get management support for a ban on single-use plastics and disposable cups, and try out meatfree days and a Climate Action Week to kickstart projects.



#ClimateActionWeek23

Things you can do



Focus on what you eat, not whether the food is locally produced. Shifting to a plant-based diet (which doesn't have to be 100% vegan) is the single most effective way to reduce your personal climate and environmental impact.

Grow your own vegetables - join a <u>community</u> <u>garden</u> or allotment, use window boxes, potted plants to grow herbs or vegetables, or lift a couple of paving slabs to create tiny gardens. An <u>average suburban garden</u> has enough space to supply c.50kg of vegetables a year!



the soil around your home. Lift paving slabs and free up the soil or lay permeable materials instead to allow the soil to absorb rainfall and to grow things!

Image: try to avoid sealing all

If you have a garden, plant native trees, shrubs and flowers that support

biodiversity.

If you don't have a garden, but have an outside wall, consider a vertical garden!





Green roofs provide space for nature as well as seasonal splashes of colour. Dun Laoghaire Rathdown County Council has a useful guidance document on how to design and install a green roof.

Avoid mowing your lawn during the month of May to support pollinators. You could still mow paths or verges to keep a 'tidy' appearance:

Avoid using glyphosate or other chemicals to control weeds. Dig them out by hand or tolerate a bit of mess! Remember dandelions, commonly regarded as 'weeds', provide important food for pollinators.

If you have a cat or cats visit your garden, try to keep bird feeders about 1.5 metres above ground and away from shrubs where a cat may be able to hide.

Alternatively keep your cat indoors at night-time and put on a bell to warn birds. Always remove dog and cat litter as this can be a significant source of pollution and contamination, and is a risk to human health.



<u>Bird feeders</u>, <u>bat boxes</u>, <u>insect hotels</u> can be useful ways to support biodiversity but follow the guidelines from expert bodies and NGOs to make sure that your intervention is even needed species usually need their habitats protected as a priority.

Avoid using artificial grass and plants in your garden: a plastic garden has no appeal for our wildlife. For ease of maintenance, a wildflower meadow in place of a mowed lawn/plastic grass is an excellent option. Grass is strimmed/mowed once or twice a year and you get wave upon wave of native wildflowers throughout the season.

Make your own <u>compost!</u> Horticultural peat (peat moss) sold in garden centres and supermarkets comes from the destruction of fragile raised bogs. The English gardening expert Monty Don describes the use of peat in gardens as 'environmental vandalism' because of the impact on important habitats and carbon emissions. In Ireland, while peat extraction has been

ended for power generation, bogs are still being mined for peat that is exported - in <u>2022</u> over 390,000 tonnes of peat were exported and sometimes from sites without environmental permits. The time has come for a total <u>ban</u> on peat extraction and sale.

If you have lots of apples of your own that get wasted as windfalls, consider drying the <u>apple rings</u> to preserve them as tasty snacks, making <u>cider</u>, bringing them to an <u>apple pressing event</u> to juice them in bulk.

Try 'guerrilla gardening' by planting trees, shrubs and vegetables on abandoned or uncared for sites. If possible, get permission from the owner or local authority.

Ways to amplify your message

- Draft a press release about your campaign and rewrite it as an article for the local newspaper.
- Create social media profiles for your group on Facebook, Instagram, Twitter (X) and TikTok. Build an audience by tagging other local groups, local media and public representatives.
- Contact local radio stations with reactions, comments and feedback on topics discussed, putting across your group's perspective and leaving contact details.
- Collect images and photos of your group's members and activities (with their permission). These are very useful for social media and you can re-use them across different platforms.
- Team up with other campaign groups such as disability rights groups, anti-poverty campaigns, Tidy Towns, local environmental organisations such as An Taisce, Irish Wildlife Trust, <u>Hedgerows Ireland</u> or BirdWatch Ireland and support each other's demands for a sustainable future for all.

Friends of the Earth 17th October 2023