

**Butterfly  
Conservation**

Saving butterflies, moths and our environment

# BUTTERFLY-FRIENDLY COUNCILS GUIDANCE

## We are in a Butterfly Emergency.

80% of butterflies have declined in the UK since the 1970s and in 2024, Butterfly Conservation's Big Butterfly Count recorded the lowest number of butterflies spotted since it began. As key indicator species for the health of the environment, butterflies urgently need action from all of us. And it starts in our communities.

Residents in your area are taking action for nature as they are concerned about the Butterfly Emergency. Now is the time for councils to step up and lead the way in becoming Butterfly Friendly.

Learn more about the science that supports your action for butterflies, and supportive guidance material to help butterflies and moths thrive in your ward.



## The Butterfly-Friendly Council Pledge

Will you join your residents taking action for butterflies, and pledge to become a Butterfly Friendly Council?

**By pledging to become a Butterfly Friendly Council, you agree to help tackle the Butterfly Emergency over the next three years by:**



1

### CREATING A BIODIVERSITY PLAN TO SAVE NATURE

We can't save butterflies and moths overnight. We need long-term commitments with funding and a timeline of action for nature recovery.



2

### IMPROVING AND CREATING PLACES FOR BUTTERFLIES AND MOTHS

We need to improve the most important places for butterflies and moths by taking action such as letting grass grow long and creating new habitats that provide connected Wild Spaces for wildlife to feed, breed and shelter.



3

### ENSURING ACCESS TO GREEN SPACES WITHIN 15 MINUTES' WALK

Everyone should have a green, wild space within 15 minutes' walk from their home. Being connected to nature improves health and wellbeing as well as helping our wildlife.



4

### ENDING THE USE OF POLLINATOR-KILLING PESTICIDES

Environmentally damaging chemical use needs reducing, with a plan to stop their use for good.



5

### TAKING LIGHT POLLUTION SERIOUSLY

Recognise light pollution as a huge threat to caterpillars, moths and people's health, and create a plan alongside the community for its reduction.



# CREATING A BIODIVERSITY PLAN TO SAVE NATURE



## WE CAN'T SAVE BUTTERFLIES AND MOTHS OVERNIGHT. WE NEED LONG-TERM COMMITMENTS WITH FUNDING AND A TIMELINE OF ACTION FOR NATURE RECOVERY.

A Biodiversity Plan gives an overview of species and habitat in a particular area, identifies threats and opportunities and sets out steps to be taken to protect and improve the area to preserve and enhance its biodiversity for the future. A biodiversity plan is a valuable way of targeting conservation at a local level but needs actions, timelines and resources to be effective.

All local authorities in the UK have a duty to develop and deliver biodiversity plans to respond to the nature emergency and deliver on international commitments to restore wildlife and nature in the long term.

But what should you include, and what support is there? This depends on where your council is based.

## COUNCILS IN ENGLAND

The 2021 Environment Act introduced a strengthened “biodiversity duty” on all public authorities which required them to consider what they could do to conserve and enhance biodiversity, agree policies and objectives which would make a difference and act to deliver the policies and objectives.

Local authorities and local planning authorities (but not Parish Councils) must write and publish a biodiversity report which demonstrates how they have assessed the biodiversity of their area and what policies and actions they have put in place to deliver on that assessment. The first report should be completed before 1 January 2026 with five-yearly updates.

More information on what a biodiversity report should include can be found [here](#).

Delivering against species conservation strategies is a key component of the biodiversity report.

## COUNCILS IN WALES

Section 6 of the Environment (Wales) Act 2016 (the Act) places an enhanced biodiversity and resilience of ecosystems duty on public authorities to ‘maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems’.

Public authorities must publish a plan setting out what they propose to do to comply with the duty. They must also report on what they have done. The first reports were due before the end of 2019, and the second round before the end of 2022.

A recent report by Audit Wales found that nearly half of public authorities have not complied with the requirement to both prepare and publish a biodiversity plan and around a quarter of public authorities have never produced a biodiversity report.<sup>1</sup>

## COUNCILS IN SCOTLAND

Under the Nature Conservation (Scotland) Act 2004, all public bodies in Scotland have a duty to further the conservation of biodiversity when carrying out their responsibilities. This biodiversity duty is about taking care of nature all around us, not just in specific protected sites or for particular species.

As outlined in the Wildlife and Natural Environment (Scotland) Act 2011 (commonly known as the WANE Act), every public body in Scotland is required to produce a publicly available report, on compliance with the Biodiversity Duty. This must be completed once every three years. Guidance on what should be included can be found [here](#).

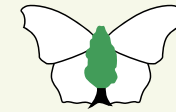
## NORTHERN IRELAND

The Wildlife and Natural Environment Act (Northern Ireland) 2011 (the WANE Act) places a statutory duty on public bodies to conserve biodiversity.

<sup>1</sup>The Biodiversity and Resilience of Ecosystems Duty March 2025



# IMPROVING AND CREATING PLACES FOR BUTTERFLIES AND MOTHS



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## WE NEED TO IMPROVE THE MOST IMPORTANT PLACES FOR BUTTERFLIES AND MOTHS BY CREATING NEW HABITATS THAT PROVIDE CONNECTED WILD SPACES FOR WILDLIFE TO FEED, BREED AND SHELTER.

We've compiled guidance on best practice for creating, managing and understanding some of the most crucial butterfly and moth habitats in the areas you care for.

## GRASSLANDS

### WHY ARE GRASSLANDS IMPORTANT?

Did you know that butterflies and moths need areas of long grass in gardens and parks between spring and autumn to complete their life cycles?

Long grass is essential for butterflies and moths throughout the entire year, as they use it for feeding, laying eggs, sheltering, and pupating. It's beneficial to leave patches uncut all the time, but it's especially important from spring to autumn, when most caterpillars feed, adults' shelter, lay eggs, and nectar on wildflowers in the grass.

### HOW CAN I MANAGE AND IMPROVE THIS HABITAT?

All grasslands can contribute to a butterfly's life cycle but the more diverse, species-rich grasslands will allow a wider range of butterflies to flourish. Species-rich

grasslands have a high diversity of native wildflowers and grasses, which have co-evolved with traditional farming techniques over the last 6,000 years. They can support healthy populations of insects, birds, bats, amphibians and many other animals.

Not all amenity grassland could or should be managed as species rich grassland habitat but by adopting environmentally friendly management practices all grassland can become more wildlife friendly.

Grasslands can be maintained by mowing or grazing. Grass should be left to grow as long as possible, especially throughout summer. Two cuts per year is generally sufficient to maintain species-rich grassland areas with structural diversity, once at the start of spring and once during the autumn.

To encourage biodiversity, mow your butterfly-friendly grasslands in late March or early April to prepare for summer, then wait as late as possible to mow again. Avoid mowing in June or July, as this can remove eggs and caterpillars of many butterflies and moths. A cut from mid-August onwards is better, with late September being ideal.

Species-rich grasslands full of native flower species generally flourish in nutrient-poor soils – nutrient-rich soils allow fast-growing species to quickly grow and outcompete native flower species. Therefore, cut-and-collect mowing practices are important, as leaving the cuttings in-situ after mowing will allow the nutrients to be absorbed back into the soil.

### HOW CAN I CREATE THIS HABITAT?

There is an extremely wide range of semi-natural grassland types, depending on the geography of the area. Many of the grasslands most important for butterflies and moths are semi-natural. This means they are not completely wild grasslands, nor are they manicured – but a blend of both, to encourage biodiversity. Species-rich grassland areas, areas which have at least 15 different native plant species per square metre, can be created in parks, on road verges, or in other green spaces of varying sizes. These individual grasslands need to be managed depending on the plant and butterfly species present.

As well as the plant species present, the structure of grasslands is a significant determinant of their biodiversity value. Longer grasslands are more structurally diverse, providing habitats, breeding sites, or overwintering sites for a greater number of species. Longer, more structurally diverse grasslands are also much more resilient to dry periods, as they are better able to retain moisture.

Find Butterfly Conservation's grassland guidance for different broad grassland types [here](#).



# IMPROVING AND CREATING PLACES FOR BUTTERFLIES AND MOTHS



## HEDGEROWS

### WHY ARE HEDGEROWS IMPORTANT?

- Hedgerows are temporary or permanent habitats for many species of butterflies and moths at various stages of their life cycles.
- Common hedgerow plants – such as Blackthorn and Hawthorn – are caterpillar foodplants for many species.
- Hedgerows act as habitat corridors for many species to move along, improving landscape connectivity.
- Hedgerows provide wider ecosystem services, including microclimate regulation, shelter, soil retention, flood prevention and carbon sequestration.

### HOW CAN I MANAGE AND IMPROVE THIS HABITAT?

The extent to which hedgerows provide benefits to butterflies, moths and other wildlife is largely determined by their extent and condition, and their composition and management.

- **Extent and condition**

Increasing the length / number of hedgerows in a landscape can create more habitats and food sources for butterflies and moths, as well as bolstering their ability to move through the landscape.

The value of hedgerows to butterflies and moths is largely determined by their condition. Hedgerows full of gaps or with short vegetation are less able to provide food, habitat and other ecosystem services.

### Defining Favourable Conservation Status in England - EIN062

- **Composition**

Native species that are present locally are best – this goes for both shrubs and standard trees within the hedgerow. Common hedgerow foodplants include Blackthorn, Hawthorn, Barberry and Elm.

Not all hedgerow plant species benefit all butterflies and moths – some species have specific larval foodplant requirements, so hedgerow plant species selection should reflect the butterfly and moth species in the area / that your Local Authority is looking to support. Having a mix of hedgerow plants should ensure that the hedgerow can benefit a greater number of butterfly or moth species.

- **Management of Hedgerows**

The overall aim is for bigger, bushier hedgerows with limited (or no) gaps. This is most easily achieved by simply letting hedgerows grow, leaving longer between cutting cycles. Cutting at most every three years is the best standard advice, though longer cycles are even better (where safe to do so).

When hedgerows do have to be cut, incremental trimming is generally the most wildlife-friendly option. This involves cutting to a greater height and

width at each successive trim (up to a point where the hedgerow will need trimming back down to a smaller size again for safety/management reasons). Incremental trimming allows hedgerows to be kept neat whilst also increasing in size over time.

The timing of trimming is important for butterflies and moths. Leaving trimming until the winter, preferably late winter, is beneficial. Many hedgerows are trimmed in early autumn, shortly after the main bird breeding season has finished. However, many other types of wildlife, including many butterflies and moths, require hedgerow resources throughout autumn and into early winter.

Where hedgerows must be cut before the winter months, some sections/sides should be left uncut whenever possible, to retain resources for butterflies, moths and other wildlife.

### HOW CAN I CREATE THIS HABITAT?

Hedgerows in poor condition can be restored to a favourable condition through active management. Gaps can be filled or new hedgerows created by planting trees or shrubs, coppicing, or laying. There are several different laying techniques, some of which are particular to certain areas.

We recommend following the latest guidance from HedgeLink for hedgerow management <https://hedge-link.org.uk/hedge-hub/resource-database/>

Find out more about butterflies, moths and hedgerows on Butterfly Conservation's website <https://butterfly-conservation.org/search?query=hedgerow>



# IMPROVING AND CREATING PLACES FOR BUTTERFLIES AND MOTHS



## TREES

### WHY ARE TREES IMPORTANT?

Did you know that one tree can support hundreds of species of moths' life cycles, and can also provide vital space for butterflies to feed, breed and shelter?

### HOW CAN I MANAGE AND IMPROVE THIS HABITAT?

As with hedgerows, management is key in terms of the benefits of trees and woodlands to butterflies and moths.

Habitat heterogeneity within woodlands is often the key determinant of their benefits to butterflies and moths. The presence of open, sunny spaces and different successional stages are the two most frequent requirements of woodland lepidoptera. A more comprehensive list of characteristics of a woodland in good ecological condition can be seen in the box to the right. The pursuit of these characteristics should guide woodland management decisions.

### CHARACTERISTICS OF WOODLAND IN GOOD ECOLOGICAL CONDITION

- Contain exclusively or near-exclusively native tree species.
- Contain a diverse mixture of native tree species.
- Contain trees of different ages, including mature trees and deadwood.
- Have permanent/semi-permanent open spaces (e.g. glades, rides).
- Have diverse ground flora.
- Have gradual edges (reduced edge effects and improved connectivity).
- Are close to other woodland patches (within 400m – improved connectivity).
- Are connected to other woodlands by hedgerows, small woodland patches, or other suitable habitats (improved connectivity).
- Contain a higher diversity of woodland-dependent species.
- Be free from, or recovering from, the impact of INNS.
- Have appropriate levels of herbivore impact.

Rotational management, sometimes lasting over a number of years, can achieve the structural diversity key to so many of the characteristics above. Active, ongoing management will be required to prevent or remove pests, diseases and invasive species from diminishing the condition of woodlands.

Individual trees will also need active monitoring and management to ensure they are in a healthy condition.

### HOW CAN I CREATE THIS HABITAT?

Our advice for managing trees for butterflies and moths can be summarised as *right tree, right place*.

#### Right tree

As with hedgerow composition, native broadleaf species, particularly with local importance, are best.

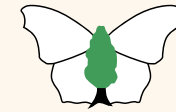
#### Right place

Trees should not be planted to the detriment of other important habitats – you should avoid destroying existing habitats, such as grasslands and meadows, just to replace them with trees. This is a particular problem for grasslands, the benefits of which are often overlooked. There is a grassland policy gap across the UK, which leaves them vulnerable to destruction through often well-meaning tree-planting projects.

- *Woodland Management for Butterflies and Moths* – a comprehensive guide.
- *Woodland Lepidoptera of Concern* – habitat features and foodplants for a selection of species.



# ENSURING ACCESS TO GREEN SPACES WITHIN 15 MINUTES' WALK



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## EVERYONE SHOULD HAVE A GREEN, WILD SPACE WITHIN 15 MINUTES' WALK FROM THEIR HOME. BEING CONNECTED TO NATURE IMPROVES HEALTH AND WELLBEING AS WELL AS HELPING OUR WILDLIFE.

Access to green spaces can make people happier and healthier. Green spaces improve air quality, reduce noise and enhance biodiversity. Enabling people to develop a connection to nature improves their own wellbeing but can also improve long term outcomes for wildlife.

Councils should include targets and a plan to ensure everyone in their areas has a nearby green space within their strategies for people's health and the environment.

### WHAT DOES ACCESS TO GREEN SPACE MEAN?

Access to Natural Greenspace Standard was first developed in England and Wales in the 1990s. The standards recommends that everyone, wherever they live, should have an accessible natural greenspace:

- Of at least 2ha in size, no more than 300m (5-minute walk) from home
- At least one accessible 20 ha site within 2km
- One accessible 100ha site within 5km
- One accessible 500ha site within 10km
- A minimum of 1ha statutory Local Nature Reserves per thousand population

### ENGLAND

Green Infrastructure Standards for England - Summary Green Infrastructure Framework - Principles and Standards for England can be found [here](#)

### WALES

**The Greenspace Toolkit** A Practical Guide to Assessing the Resource and Implementing Local Standards for Accessible Natural Greenspace Provision in Welsh towns and cities.

### SCOTLAND

NatureScot provide a range of advice and case studies on provision of green infrastructure to provide ecological, economic and social benefits:  
**Green Infrastructure**

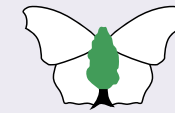
### NORTHERN IRELAND

For a review of the policy surrounding greenspace provision in Northern Ireland as well as information on the value and availability of urban green spaces please see Northern Ireland Environment Link's project **Urban Green Spaces**





# ENDING THE USE OF POLLINATOR-KILLING PESTICIDES



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## **ENVIRONMENTALLY DAMAGING CHEMICAL USE NEEDS REDUCING, WITH A PLAN TO STOP THEIR USE FOR GOOD.**

### **WHAT ARE PESTICIDES AND WHY ARE THEY A PROBLEM?**

Pesticides are a group of chemicals that are used to control a variety of pests, including:

- Insecticides that kill insects
- Herbicides that kill plants
- Fungicides that kill fungi

Your council, through your own staff or contractors, may be using these in public areas as a way of controlling cosmetics such as weeds, insects which harm ornamental plants or for maintenance of sports pitches. But our communities can be both well maintained, and thriving with biodiversity – it just requires a plan to reduce the reliance on outdated pesticides.

Some of these chemicals are highly persistent, meaning they reside in the spaces they are used long into the future, running off into water courses and indiscriminately killing plants and insects relied upon by other wildlife to feed and shelter in. Exposing people, wildlife and the environment to chemicals, some of which are harmful to human health, is unnecessary.

### **WHAT CAN COUNCILS DO?**

There are now alternative and proven ways to create safe, attractive and functional neighbourhoods that don't use chemicals – which is great news for butterflies, moths and people alike. By introducing a long-term plan to reduce your reliance on pesticides, you'll be joining villages, towns and cities across the world who have gone 'pesticide free' for the benefit of people and planet.

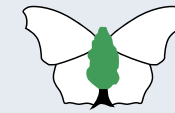
Butterfly Conservation is part of the Pesticide Action Network UK, who have created detailed guidance on how councils and other authorities can begin to reduce their use of pesticides. Find case studies, tested alternatives and toolkits on best practice that can be shared with contractors.

### **Information for local authorities - Pesticide Action Network UK**





# TAKING LIGHT POLLUTION SERIOUSLY



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## WE NEED TO RECOGNISE LIGHT POLLUTION AS A HUGE THREAT TO CATERPILLARS, MOTHS AND PEOPLE'S HEALTH, AND CREATE A PLAN ALONGSIDE THE COMMUNITY FOR ITS REDUCTION.

In the UK, moth numbers have fallen on average by 33% since the 1960s, and light pollution is an increasing contributor to these declines. Our research showed that moth caterpillar numbers under LED streetlights were 52% lower in hedgerows and 43% lower on grass verges compared to those which were unlit.

## WHAT IS LIGHT POLLUTION?

Light pollution is the presence of excess artificial light at night (ALAN). Light pollution includes light from light sources themselves, including external lights, vehicle lights, illuminated signage, and indoor lighting shining through windows, as well as the resulting skyglow from the reflection of these lights. It's a growing problem in the UK and worldwide, with many negative impacts on wildlife, as well as on human health and wellbeing.

Whilst localised light pollution can occur anywhere, light pollution tends to be higher in more urban areas. However, light pollution from urban areas is often visible in rural areas too.

The ways in which light pollution affects butterflies, moths and other wildlife are many and various, ranging from direct impacts on mortality, behaviour and migration, to impacts on development, physiology, mating, food chains and wider ecosystems. Nocturnal wildlife is most directly affected, but diurnal wildlife can also be negatively impacted through changes in the wider ecosystems.

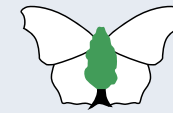
**For a more comprehensive list of the negative impacts on light pollution, find out more using DarkSky International's resources [here](#).**

As many moths are nocturnal, they are one of the animal groups most affected by light pollution, though diurnal moths and butterflies can still be affected due to impacts on their caterpillars or changes in the wider environment.





# TAKING LIGHT POLLUTION SERIOUSLY



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## WHAT CAN COUNCILS DO?

Mitigating light pollution doesn't necessarily mean living in darkness; it means using the right light, in the right place, at the right time. Creating 'Moon Meadows', areas managed for butterflies and moths with lighting adapted in the below ways, is a great place to start when looking to reduce the environmental impacts of light pollution.

### Right light

Lighting can be modified to reduce light pollution in several ways.

The colour (sometimes referred to as the colour temperature) of lights can be significant – 'warmer' lights (more orange in colour, typically in the 2,000 – 4,000K range) are generally less harmful to wildlife, compared to 'cooler' lights (bluer in colour, typically above 4,000K). You can swap cooler bulbs or LEDs for ones with warmer tones or use a filter to change the colour.

The brighter the light, the more it will contribute to light pollution. Consider the needs of lit areas at night – how brightly lit do they need to be? 'Daylight bright' lights are rarely necessary at night – our eyes will easily adjust to dimmer lights when used in relative darkness. Also consider the surfaces these lights will shine on – dimmer lights are sufficient to illuminate paler surfaces.

### Right place

Right place refers not only to where lights are positioned, but also to the direction of the light from its source. Avoid illuminating areas that are important for wildlife, such as trees and hedges. Unshielded outdoor fixtures allow light to be emitted in multiple directions, contributing to light pollution.

Adding shielding retrospectively to your lighting will benefit wildlife, but it is also generally safer and more convenient for people too. Rather than using unshielded lights that produce glare and illuminate entire buildings or walkways, shielded lights will result in more clearly defined areas and pathways. To see how this works in practice, see Planning for the Conservation and Enhancement of Dark Skies in Wales,

The right place for indoor lights is just that: indoors. Closing curtains and blinds will stop indoor lights spilling outside. Recognising the impacts of bigger windows on homes and businesses.

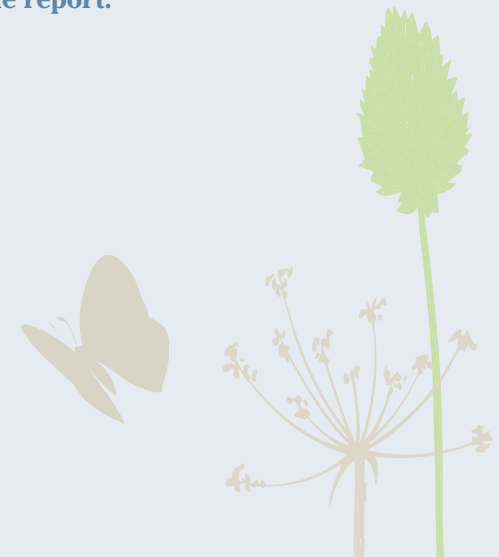
### Right time

Some lights may not need to be on all night or under all circumstances. Lighting for building facades, for example, may be necessary in the early evening, but not throughout the night, when lighting just the entrance may suffice. Other lights can be controlled using sensors, so that they only come on when necessary.

Speaking to lighting consultants can help create lighting regimes that meet the suggestions above. Consultants can create bespoke regimes or fixtures to meet specific requirements.

### Further reading for light pollution:

- *Moon Meadows guidance* – public-focused document looking at planting for nocturnal pollinators and reducing light pollution on multiple scales. [Download Moon Meadows guidance.](#)
- FAQ on light pollution and moths: good overview of the issue and solutions to it, with plenty of information on moths. [View FAQ.](#)
- *A Review of the Impact of Artificial Light on Invertebrates*: a detailed literature review. Particular detail given to the many ways light pollution can impact invertebrates, both terrestrial and aquatic. [Read the report.](#)



# ADDITIONAL GUIDANCE AND RESOURCES



## THE STATE OF UK'S BUTTERFLIES REPORT

Every five-years, Butterfly Conservation and its partners publish an assessment of the UK's butterflies. Drawing from our world-leading recording and monitoring schemes, these influential reports set out the key results for butterfly species, and can be helpful to draw on when looking to change policies in your area.

[Read the report](#)

## MANAGING URBAN HABITATS FOR BUTTERFLIES

This comprehensive guide covers a range of common urban habitat types and discusses different management methods to maximise their potential to support butterflies. It's packed full of case studies from a range of sites.

[Urban Butterfly Brochure](#)

## URBAN HABITAT RESOURCES

These downloadable factsheets give advice on managing the different types of habitats found in towns and cities and even show how you can help at home with tips on how to create a wildlife haven in your garden.

[Urban Habitat Resources](#)

## IDENTIFY BUTTERFLIES AND MOTHS IN YOUR AREA

Most butterflies and widespread day flying moths can be identified using Butterfly Conservation's Identify a butterfly or Identify a moth feature.

[Identify a butterfly](#)

[Identify a moth](#)

## BUTTERFLY AND MOTH REPORTS AND FACTSHEETS

Our collection of species factsheets and habitat downloads can be used to provide an overview of species ecology, assist with species identification and advise on best practice management for specific species and habitats.

[Reports and factsheets](#)

