



EU POLLINATORS INITIATIVE

A review of Member States actions to tackle the decline of wild pollinators



STRATEGY



INITIATIVES



Rural



Urban



Private sector



NATIONAL RED LISTS

Threatened species



Available for butterflies (2018)



RAISING AWARENESS



Citizens



Schools children



Farmers & beekeepers

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The national strategy for wild pollinators is currently under preparation, with a national workshop held in January 2020. All relevant stakeholders from the public, private and NGO domains will be consulted during the drafting of the strategy. A number of pollinator promoting measures can be found in the national plan for nature protection 2017-2021.

The Red list on butterflies was completed in 2018 and will be published in the butterfly atlas soon. There is not yet a red list for wild bees or hoverflies. It is planned that the National Natural History Museum (MNHNL) will produce a first national atlas on wild bees. A pilot phase of the national monitoring programme will start to survey wild bees and hoverflies in 2020.

Research activities on the causes of pollinator decline and potential solutions in Luxembourg are limited.

Action plans exist for two butterfly species and six habitats that are important wild pollinator habitats. The biodiversity programme ‘Naturschutz durch Nutzung’ includes measures in agricultural areas that support wild pollinators.

Green infrastructure projects aim at making urban areas more “nature friendly”. Several regional and local-level initiatives involving NGOs and LIFE funded projects focus on habitat restoration, aim at engaging society and promote collaboration.



STRATEGIES FOR WILD POLLINATORS OR ANY OTHER SIMILAR PLANS

The preparation of the [national strategy for pollinators](#) in Luxembourg was announced in December 2019. This national strategy and the associated programme of measures constitute one of the priorities of the current government as mentioned in the [coalition agreement 2018-2023](#). The Ministry of the Environment, Climate Change and Sustainable Development has the lead in drafting this strategy. The first draft was presented in a national workshop in January 2020, followed by three regional workshops in February. Both bottom-up and top-down approaches to pollinators conservation will be adopted. The public is currently being asked to submit ideas for actions, which are being published on the [national pollinator plan website](#).

The national pollinator plan ([Nationalen Aktionsplang fir de Schutz vun de Bestëbser-Insekten](#)) objective is to halt the loss of pollinator diversity and biomass. Measures will be in the areas of:

- improving the quality of living conditions in agricultural environment, forests, aquatic systems and urban areas
- reducing or banning the use of pesticides in the professional, public and private sector
- improving the knowledge and scientific database on pollinators
- analysing the current financing programmes to ensure attractive financing programmes for the future
- information, training and awareness campaigns

The funding will be from national sources as well as relevant European Funds. The government has foreseen a budget for certain measures of the national strategy.



IMPROVING KNOWLEDGE OF POLLINATOR DECLINE, ITS CAUSES AND CONSEQUENCES

RED LISTS ON POLLINATORS AND DATA ON POLLINATOR POPULATIONS

The Red list on butterflies was completed in 2018 and will be published in the butterfly atlas soon. The butterfly atlas contains around 100,000 unique records and information on distribution trends.

There is not yet a red list for wild bees or hoverflies. Data on wild bees and hoverflies are held by the national repository of natural heritage at the National Natural History Museum (MNHNL) but are currently insufficient for a red list assessment. The MNHNL plans to produce a first national atlas on wild bees, which will significantly improve knowledge on current species distribution. Collection of field data is planned to start in 2020. If the atlas data is updated every few years using a similar protocol, it will be possible to estimate changes in species distribution in the long term.

POLLINATOR MONITORING SCHEMES

A wild pollinators national monitoring programme in Luxembourg, with a focus on wild bees and hoverflies, will be financed by the Ministry of the Environment and is currently being developed at the Luxembourg Institute of Science and Technology (LIST). A pilot monitoring programme was started in 2019. A combination of bumblebee-walks and pan-trapping methods will be used for sampling. This should allow the estimation of time trends in the abundances of some wild bee and hoverfly species.

LIST has been coordinating [butterfly monitoring in Luxembourg](#) since 2010 using a combination of transect (i.e. Pollard walk) and site based surveys (Titeux et al 2009). Some of the butterfly transect surveys are conducted by volunteers. It is expected that some of these volunteers will also participate in the bumblebee-walk surveys and a citizen science programme is under discussion.

LIST organised a national [workshop on pollinators](#) in December 2018 to discuss the status of knowledge about pollinator species distribution and gaps in knowledge.

RESEARCH INITIATIVES

Research activities on the causes of pollinator decline and potential solutions in Luxembourg are limited. The national atlas of wild bees project (described above) will include PhD research on bee distribution and status.

Research has been done on honeybees in the context of the [BeeFirst project](#), which aims to identify factors related to the loss of honey bees.

TAXONOMICAL EXPERTS ON POLLINATORS

There is a need to improve taxonomical identification skills in the country. The Natural History Museum of Luxembourg (MNHNL) plan to improve pollinator species identification in the monitoring programme by applying molecular methods. Although there is some taxonomical expertise in the country for some groups, training activities would be needed to fully implement a pollinator

monitoring programme in the country and dedicated funding made available. A bee collection is held at the MNHNL, which the atlas project will add to.



INITIATIVES TACKLING THE CAUSES OF POLLINATOR DECLINE

ACTION PLANS ON SPECIES AND HABITATS

The [national plan concerning the protection of nature](#), adopted by the government in 2017, is the strategic instrument for the implementation of the nature protection policy in Luxembourg (including the protection on pollinators and the valuation of pollination services) and defines the priorities and strategic axes. The implementation of these nature protection measures is coordinated by the Ministry of the Environment. One measure of the plan relates to the drafting and the implementation of action plans for endangered species and habitats and foresees also the drafting of a pollinator action plan.

Luxembourg has [species action plans](#) for two butterfly species (*Lycaena helle*, *Lycaena dispar*) and the following habitats which are important for the survival of wild pollinators:

Orchards (Vergers)

Dry calcareous grasslands (Pelouses calcaires)

Dry heathlands (Landes à callune)

Hay meadows (Prairies maigres de fauche)

Molinia meadows (Prairies à molinies)

Calthion palustris wet meadows (Prairies humides du Calthion)

FARMER AND LANDSCAPE INITIATIVES, AS WELL AS LOCAL LEVEL STRATEGIES

Two types of voluntary contractual measures for biodiversity on agricultural land exist in Luxembourg:

- **Agri-environment measures (AEMs):** Luxembourg's national Rural Development Program 2014-2020 (LRDP) contains several biodiversity targeted AEMs. Their contribution to protect

Luxembourg's wild pollinators has not been demonstrated. Other RDP measures fund the maintenance of hedges along field edges, the creation of extensively managed margins around arable fields, as well as biodiversity-friendly maintenance of orchards and vineyard landscapes.

- **Biodiversity Support Programme ([Biodiversity Contracts](#))**: The biodiversity programme, also known as 'Naturschutz durch Nutzung', is an initiative supported by national funds that offers contracts of at least 5 years. Measures in agricultural areas include:
 - Grassland programme (options for meadows, mixed grazing-mowing, pastures, year-round grazing)
 - Arable programme (options for arable field margins – field edge or whole field options, flowering strips – field margin or in field options)
 - Programme for specific habitats (extensive grazing with sheep or goats)
 - Programme for management of fallows and buffer strips along water bodies
 - Maintenance and restoration of dry-stone walls

Regional and local-level actions that are likely to be benefiting wild pollinators:

Green infrastructure projects: The nature and forestry administration (ANF) has carried out over 150 projects since 2015 to make urban areas more "nature friendly". This encompasses the creation of "eco-parking lots" and green alleys or changes in management practices (e.g. adoption of late mowing).

The NGO **natur&ëmwelt** carries out practical actions and research which have a positive impact on pollinators. For instance:

- The [LIFE Eislek project](#) (2012 to 2017) aimed at restoring a landscape mosaic composed of wetlands, pastures and late-mown meadows, including natural elements such as hedges and shrubs, on 11 Natura 2000 sites. The project had a positive impact on three threatened butterfly species: Violet Copper (*Lycaena helle*), Bog Fritillary (*Boloria eunomia*) and Small Pearl-bordered Fritillary (*Boloria selene*). The after-LIFE plan funded by the Ministry of the Environment is ongoing.
- The [LIFE Orchis Project](#) (2014-2019) aimed to restore, connect and preserve in the long-term existing calcareous grasslands and juniper formations in southeastern Luxembourg, by sustainable management. Calcareous grasslands are among the most species-rich grasslands and key wild pollinator habitats.

The intercommunal syndicate **SICONA** implements nature conservation measures for the protection of biodiversity and landscapes in municipalities in the south and centre of Luxembourg. Projects benefiting pollinators include the conservation of large old high-stem fruit trees, solitary trees and hedges, which provide habitat and food resources for many species including pollinators. See below for SICONA's awareness raising activities.

- SICONA implements the [LIFE Project 'Conservation and management of species-rich grasslands by local authorities'](#) (2014-2020). The project is restoring five threatened habitats (semi-natural dry grasslands, Molinia meadows, hydrophilous tall herb fringe communities, lowland hay meadows, transition mires) in 15 Natura 2000 sites.

MEASURES ON PESTICIDES

The national “[Plan d’action national de réduction des produits phytopharmaceutiques](#)” envisages a significant reduction (50%) of pesticides by 2030, an objective to be achieved by means of 25 measures.

Since 1 January 2016, pesticides are [banned in public spaces](#). The campaign [Ouni Pestiziden](#) (without pesticides) is co-funded by the Ministry of the Environment and coordinated by the [Emwelt Berodung Lëtzebuerg](#). The campaign aims to reduce pesticide use by public authorities, schools, citizens and garden centres, through awareness raising activities, educational programmes and training.



RAISING AWARENESS, ENGAGING SOCIETY-AT-LARGE AND PROMOTING COLLABORATION

TRAINING AND AWARENESS RAISING CAMPAIGNS

The ANF published a brochure [Fir e liewege Gaart](#) in 2015 with tips on how to design private gardens in such a way that they are more attractive to pollinators. The Ministry of the Environment co-financed a practical guide for municipalities on “Establishment of near-natural green areas in settlement areas”.

The nature conservation syndicate SICONA runs the campaign [Aktioun Päiperlek](#) to encourage individuals and local communities on how to create a butterfly friendly garden and enhance public green spaces for pollinators, with practical advice and an invitation to report actions to the MNHNL (Natural History Museum). “Butterfly days” and the action “Participate” (“Maacht mat”) in cooperation with the MNHNL are part of the campaign.

The [intercommunal syndicate SIAS](#) and its 19 partner and member communities together with SICONA advise [municipalities](#), [land managers](#) and [citizens](#) on how to best improve resources for wild

pollinators, such as appropriate seed mixtures for planting flower meadows and how to construct insect hotels. SIAS holds half-day workshops to give practical knowledge on managing green spaces with pesticide-free ornamental plants. SIAS also promotes the conservation of orchards with old high-stem fruit trees ([Bongerten](#)), important food resources for pollinators, and provides information on how to provide nest and food resources for wild bees.

The nature parks (Our, Upper Sûre, Mëllerdall) organise the awareness campaign Network Blossoming Landscapes ([Flouer a Gaart an der Bléi](#)). This project is about enhancing the diversity of insects, especially wild bees, through increasing flower diversity.

The NGO Mouvement Ecologique promotes the protection of wild pollinators, for example through information on the use of [bee-friendly plants in gardens and balconies](#). The NGO's [A voller Bléi](#) campaign has engaged municipalities to plant bee-friendly plants in many areas.

EDUCATIONAL CAMPAIGNS AND MATERIALS ON WILD POLLINATORS

The city of Luxembourg, in collaboration with the MNHNL, organises walking circuits across the capital with information points, to encourage children and adults to learn about bees and other insects ([Bees and Biodiversity Awareness Project](#)).

Other educational initiatives have a broad biodiversity scope but can include some elements specifically on pollinators:

- SICONA offers a [program of activities for primary and secondary school children, teenagers and adults](#) to get them familiar with local flora and fauna.
- MNHNL (Natural History Museum) organises [educational activities for children and teenagers](#) to discover biodiversity in the countryside and in [urban environments](#).
- The ANF organizes nature activities in its five [nature and forestry centres](#) every year. Some of these activities concern wild pollinators directly or indirectly.
- MNHL has published [Guidelines to ensure the long-term survival of endangered arable plant species in Luxembourg](#) and to establish viable populations at their historical sites. If implemented at the nationwide scale, this recommendation could have a positive impact on wild pollinators.

CITIZEN ENGAGEMENT CAMPAIGNS

The nature conservation syndicate SICONA campaign [Aktioun Päiperlek](#) (in cooperation with MNHL) invites citizens to report sightings of the 10 most common butterfly species ([Maacht mat](#)), as described in the bilingual [brochure](#).

See the current citizen consultation for ideas for the national pollinator plan (described above) and the awareness raising campaigns (described above).

PRIVATE SECTOR INITIATIVES FOR WILD POLLINATORS

The NGO Mouvement Ecologique has linked with 11 [garden centres](#) to promote the use of [bee-friendly plants in gardens and balconies](#).

APICULTURE SECTOR INITIATIVES FOR WILD POLLINATORS

Some initiatives are taking place in Luxembourg for honey bees ([honey bee wild](#), [citizen scientists](#)), but no apiculture sector initiatives aimed at wild pollinators have been identified.

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Educational materials

Identification guide to common butterfly species published in 2019: [Die Schmetterlinge Luxemburgs](#). natur & Umwelt foundation. https://www.naturemwelt.lu/wp-content/uploads/2019/07/Papillon_DE.pdf