



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 wild bees, as well as butterflies and moths [2001]



RAISING AWARENESS



Citizens



Schools children



Farmers & beekeepers

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No strategy for wild pollinators has been developed.

The national red lists of Hymenoptera, Lepidoptera, Diptera and Coleoptera were published in 2001 and need updating. A reference list of bees and wasps (Aculeata - Hymenoptera) in Slovakia was published in 2014. The national biodiversity database lists records of some species of Hymenoptera, Lepidoptera, Diptera, and Coleoptera, although it does not contain much information on pollinators. A limited number of taxonomical experts are found in the country.

In general, the focus is still on domesticated bees and beekeepers. The Ministry of Agriculture and Rural Development of the Slovak Republic is responsible for the national apiculture programme.

Several stakeholders are involved in wild pollinator conservation activities, but so far, their work is not coordinated. The Ministry of Environment of the Slovak Republic (MoE SR) organized a workshop in May 2019 to which all relevant stakeholders were invited, and potential future actions for wild pollinators were discussed.

Several projects are aimed at increasing biodiversity protection in Bratislava and other urban areas, establishing strategies, mapping and monitoring, and creating habitats. The City Bees project is creating habitat for wild pollinators in Bratislava by changing the green space management.

The private sector has been involved in some awareness raising actions for wild pollinators, including the construction company responsible for building the R1 PR1BINA highway.



STRATEGIES FOR WILD POLLINATORS OR ANY OTHER SIMILAR PLANS

No strategy for wild pollinators has been developed.

The Ministry of Environment of the Slovak Republic (MoE SR) organized a workshop in May 2019 to which all relevant stakeholders were invited, and potential future actions for wild pollinators were discussed¹.

In general, the focus is still on domesticated bees and beekeepers. The Ministry of Agriculture and Rural Development of the Slovak Republic is responsible for the national apiculture programme. The current “National Programme on stabilisation and development of the Slovak Beekeeping” runs from 2019 until 2022.



IMPROVING KNOWLEDGE OF POLLINATOR DECLINE, ITS CAUSES AND CONSEQUENCES

RED LISTS ON POLLINATORS AND DATA ON POLLINATOR POPULATIONS

The national red lists of Hymenoptera, Lepidoptera, Diptera and Coleoptera were published in 2001. They now need updating. The red list of Hymenoptera (Lukáš, 2001) encompassed 301 species, of which 27% were endangered (23 were classed as critically endangered, 59 as endangered, 203 as vulnerable, and 16 as lower risk). The red list of Lepidoptera (Kulfan and Kulfan, 2001) encompassed 111 species, of which 34% were endangered (6 were classed as extinct, 21 as critically endangered, 15 as endangered, 41 as vulnerable, 17 as lower risk, and 11 as data deficient).

¹ MoE SR explained global, EU and other interesting national documents, strategies and policies from other countries are available, from which also activities in Slovakia will have to be significantly improved (pers comm Eva Viestova, MoE SR).

Smetana published a list of references about bees and wasps (Hymenoptera-Aculeata) in different parts of Slovakia (Smetana, 2014). All studies include location, type of data acquisition and list of species. The titles and texts are mostly in Slovak (with English abstract) (Smetana, 2018, personal communication).

The national biodiversity database managed by the State Nature Conservancy of the Slovak Republic (SNC SR) lists records of selected species of Hymenoptera, Lepidoptera, Diptera, and Coleoptera (www.biomonitoring.sk - [Komplexný informačný a monitorovací systém](#)).

The information and monitoring system (KIMS) of the State Nature Conservancy of the Slovak Republic (SNC SR) is the main database system in the country. It was created mainly for the purpose of fulfilling the requirements of EU Nature legislation. This includes the mapping and monitoring of the pollinators that are listed on the Habitats Directive. However, at a later stage it is expected to also cover other pollinator species.

POLLINATOR MONITORING SCHEMES

There is no pollinator monitoring beyond the Lepidoptera species protected by the EU Habitats Directive.

RESEARCH INITIATIVES

The Department of Animal Production at Slovak Agricultural University in Nitra is involved in several research projects.

- The project “SmartBees” involves pollen monitoring, as part of the EPI- AGRI focus group dealing with bee health and sustainable beekeeping.
- Robert Chlebo co-authored a recent publication evaluating the benefits for wild pollinators of Ecological Focus Areas, part of the greening measure of the CAP (Cole et al 2019).

The Beekeeping Institute in Liptovský Hrádok, Slovak Academy of Sciences and the Veterinary University in Košice carry out research on the population and health of honeybees.

TAXONOMICAL EXPERTS ON POLLINATORS

A limited number of taxonomical experts are available in Slovakia, mainly working at the Slovak Academy of Sciences but also at Tekovské múzeum. Lepidoptera experts include entomologist Marek Semelbauer at the Institute of Zoology SAS, Henrik Kalivoda at the Institute of Landscape Ecology, Ján Kulfan at the Institute of Forest Ecology, Miroslav Kulfan at the Comenius University in Bratislava and Ľubomír Panigaj at Pavol Jozef Šafárik University in Košice. Vladimír Smetana at Tekovské múzeum is the expert on invertebrates including Hymenoptera – Apidae, Bombidae, Vespidae.



INITIATIVES TACKLING THE CAUSES OF POLLINATOR DECLINE

ACTION PLANS ON SPECIES AND HABITATS

Action plans for the conservation of two butterfly species protected by the EU Habitats Directive are in place:

Colias myrmidone (Danube Clouded Yellow)

Parnassius apollo (Apollo)

FARMER AND LANDSCAPE INITIATIVES, AS WELL AS LOCAL LEVEL STRATEGIES

Common Agricultural Policy Rural Development Programme

The Slovakian Rural Development Programme contains several requirements, measures and actions that aim to protect natural and semi-natural grasslands, which are important habitats for pollinators.

The main objective of the agri-environment measure “M10.4 Multifunctional field margins – biostrips on arable land” is to create conditions and places for the nesting of relevant bird species, places for the protection of small animals, and conditions for vegetation activity of pollinators in agricultural land through the creation of multifunctional field margins sown with perennial flower mixtures consisting of certified species of plant seeds without any chemical treatment (Pašová 2015). The measure is intended for the most fertile areas with intensive agriculture and low biodiversity of Slovakia. Conditions for obtaining the subsidy are as follows:

To sow perennial flower mixtures in multifunctional strips of arable land having a minimum width of 5 m (maximum width of 10 m) and length of 200 m, placed either on the margins or inside of the arable land parcel between two different grown crops; sowing of multifunctional strips must be realised by the end of April of the respective year; no use of chemical plant protection products or mineral fertilisers on the established multifunctional strips all year; no ploughing and/or conversion; and no cutting of the strips.

Applicants had the opportunity to apply for the first time in 2015, for a subsidy amount of €350/hectare of area of created multifunctional strip on arable land. The initial target was to support multifunctional strips on 12,000 ha of arable land, but as there was no interest in the scheme, this was decreased to 5,000 ha and the amount of aid was increased to €482.20/ha. However, the uptake in 2018 was only 22.6 ha by five beneficiaries. Farmers put forward several arguments to explain their low interest in

biostrips: the strict conditions, including strip size and layout, the ban on use of pesticides and fertilisers, the required plant composition and the low availability of seeds. They welcome bio-strips and other greening elements but believe that it is necessary to address these related problems (ŠefferoVá, ŠeffeR 2019).

The Slovakian Ministry of Environment expects that in the next CAP Strategic Plan (2021 – 2027), more will be done to support farmers to protect pollinators and these supports will be already for the whole landscape and not only within the already managed natural and semi-natural grasslands (like buffer strips for pollinators also on intensive arable land, specific ecological focus areas, etc.).

Public sector initiatives

Several projects are aimed at increasing biodiversity protection in Bratislava and other urban areas, establishing strategies, mapping and monitoring, and creating habitats. They are making meadows and grass management in cities and villages more pollinator friendly. The projects are implemented by the NGO BROZ and/or the Institute of Applied Ecology (Daphne) with Bratislava municipality and other partners. Slovak Environment Agency, which deals with green and blue infrastructure in cities and villages, is also involved in this type of initiative.

- **City Bees project in the Bratislava municipality Karlová Ves:** The green space management team leaves circles with uncut grass on green spaces (such as the slopes along the tramways) of the city. The circles remain green when the rest of the mown grass turns brown and dry, and so look visually attractive whilst providing flowering resources for pollinators throughout the summer and hibernation sites during winter. Most of the green spaces were previously cut about seven times each year. The project is led by the Center for Environmental and Ethics Education Zivica (CEEV Živica) and Technical University in Zvolen with the support of DM Drogerie Market Slovensko and Green Foundation. It also involves the Zaježová Education Center and beekeepers.
- **Interreg Project “[Blossoming country for butterflies in Slovakia and Austria](#)”** is focused on the establishment of a network of junctions and stepping stones that will improve the functionality of the Alpine-Carpathian corridor for butterflies and biodiversity in general. Through the project, model biocentres and stepping stones will be built directly, representing oases for butterflies, insects and biodiversity in an intensively used landscape. These areas are used as beacons for propagating the importance of biodiversity using various means of communication. These will be oriented to the general public but also to cities, municipalities, and district administrators. The Umweltschutzorganisation GLOBAL 2000 is lead partner and the NGO BROZ is the Slovak partner.
- **Interreg Project “[Development of methods and means of communication to preserve and stabilize biodiversity and ecosystem services in Vienna and Bratislava](#)”** focuses on achieving a long-term biodiversity increase in the urban area: research, mapping and monitoring of fauna and flora, development of methods and implementation of sustainable management of 11 ha meadows as well as measures to protect selected species. The common problem of both cities is the insufficient protection of biodiversity, therefore the activity focuses on the preparation of a common strategy for the conservation of biodiversity in urban habitats. Lead Partner is

City forest Bratislava with Slovak partner Daphne – Institute of Applied Ecology and Austrian partner Wiener Umweltschutzabteilung - MA 22.

MEASURES ON PESTICIDES

None identified.



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

TRAINING AND AWARENESS RAISING CAMPAIGNS

Trainings and awareness raising campaigns are usually launched by national governmental institutions or by NGOs and are mainly targeted to new beekeepers. The MoE SR ran a campaign together with the TESCO supermarket company on the importance of pollinators and pollination, with an emphasis on food production.

EDUCATIONAL CAMPAIGNS AND MATERIALS ON WILD POLLINATORS

No specific educational materials dedicated to wild pollinators have been identified. However, usually the topic of pollination and protection of pollinator species is included in all relevant nature, biodiversity and landscape protection materials and documents.

CITIZEN ENGAGEMENT CAMPAIGNS

Local citizen engagement campaigns on wild pollinators are being launched. The Ministry of Environment SR is preparing a Clearing house Mechanism for biodiversity (biodiversity.sk) where this type of information is being collected.

PRIVATE SECTOR INITIATIVES FOR WILD POLLINATORS

Private sector initiatives are currently mainly focused on honeybees.

The company GRANVIA, the concessionaire for the R1 PR1BINA expressway construction, launched a large-scale campaign "Bee - the guardian of the environment" to raise awareness about the need to protect bees and the environment and to honour World Bee Day in 2018. The campaign is carried out in schools and among the general public in collaboration with local beekeepers. It includes the distribution of small bee hotels suitable for gardens and a flower seed mix for bees. During the campaign, the company installed 40 bee apiaries, with approximately 2 million honeybees, on around 24,000 hectares of land along the 52 km of the R1 PR1BINA road, which is mostly surrounded by fields, meadows and forests with crops and wild plants attractive to honeybees. The company is striving for a maximum reduction in the use of pesticides and avoiding the usage of any chemicals on their green areas. They are monitoring the honey, pollen and beeswax to determine the quality of the environment in the region, the first time such a survey is conducted in Slovakia.

APICULTURE SECTOR INITIATIVES FOR WILD POLLINATORS

The apiculture sector is still focused mainly on domesticated bees and production of honey and honey products, but their willingness to engage in the protection of wild pollinators is increasing.

There are also initiatives by producers of apiculture products (Včelco s.r.o.) and by producers of technology for honeybee health (BeehiveMonitoring).

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Educational materials

None identified.