



EU POLLINATORS INITIATIVE

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

SLOVENIA



STRATEGY



INITIATIVES



Rural



Urban



Private sector



NATIONAL RED LISTS

Threatened species



Available for wild bees [1992]



RAISING AWARENESS



Citizens



Schools children



Farmers & beekeepers

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Despite having signed the Coalition of the Willing in 2016, no national strategy on wild pollinators has been prepared to date. However, the Slovenian Ministry of the Environment and Spatial Planning drew up a National Environmental Protection Programme (NEPP) to 2030 established long-term goals for environmental protection. This included the integration of the protection of wild pollinators into strategic and programme documents.

There are not many pollinator experts. The Slovenia national red list of bees is now 20 years old and needs to be updated. The National Institute of Biology (NIB) is leading the work and data on wild pollinators are held at the institute. Research projects are very focused on honeybees and the Carniolan honeybee subspecies, with little attention to wild pollinators. Training opportunities for taxonomical identification of wild bees need to be developed as only one centre (The Slovenian Museum of Natural History) can provide expertise in the country.

Actions plans focus on habitat protection. Management programme on Natura 2000 sites in Slovenia 2015-2020 – priority sites and species and habitat types are defined and addressed through projects from ERDF. However, apart from habitat protection, there are no protection targets for specific wild pollinator species. The National Beekeepers' Association in Slovenia launched the World Bee Day initiative in 2006 to raise awareness of the importance of bees and other pollinators for food security and biodiversity amongst the general public. The NIB has issued several publications on wild pollinators such as bumblebees and solitary bees.



STRATEGIES FOR WILD POLLINATORS OR ANY OTHER SIMILAR PLANS

Slovenia is part of the Coalition of the Willing on Pollinators (Promote Pollinators) since 2016. However, no national strategy on wild pollinators has been prepared to date. In general, activities have been very focused on honeybees and the Carniolan honeybee subspecies, with little attention to wild pollinators. The Carniolan honeybee subspecies (*Apis mellifera carnica*) has been protected since 2002 under the [Livestock Breeding Act](#). Pollinators in Slovenia are primarily protected by conservation of their habitats. Currently, [Natura 2000 sites](#) cover 37% of Slovenia and other nationally protected areas cover 13%.¹

The Slovenian Ministry of the Environment and Spatial Planning published at the end of 2017 a [National Environmental Protection Programme \(NEPP\)](#) to 2030, which established long-term goals for environmental protection. This includes the integration of wild pollinator conservation into strategic and programme documents. A new National Programme for Nature Conservation is being prepared (as part of the NEPP), and it will propose activities for protection of wild pollinators, especially active cooperation with relevant sectors such as agriculture and forestry. Different funding sources are being considered to fund actions on wild pollinators – from state budget, to EU funds – especially EAFRD (rural development), but also potentially the National Climate Fund, which also includes biodiversity conservation measures. Main responsible organizations will be the ministry responsible for agriculture forestry and food, together with the environment ministry and other parts of government. Relevant stakeholders (researchers, NGOs, public organizations for nature conservation etc.) will also likely be involved.

The Action plan for [World Bee Day](#) till 2022 is being prepared by the Ministry of the Agriculture, Forestry and Food with some parts dedicated to wild pollinators. The Ministry of the Environment and Spatial Planning is actively involved and has already proposed some activities, e.g. monitoring of wild pollinators, habitat improvements, and awareness raising activities.

¹Personal communication, 19/09/17, Robert Bolješić, Slovenian Ministry of the Environment and Spatial Planning



IMPROVING KNOWLEDGE OF POLLINATOR DECLINE, ITS CAUSES AND CONSEQUENCES

RED LISTS ON POLLINATORS AND DATA ON POLLINATOR POPULATIONS

Slovenia is a small country and despite having more than 500 wild bee species and very high biodiversity there are not many pollinator experts. The National Institute of Biology (NIB) holds the main data collections on wild pollinators. The [Slovenia national red list of animals](#), including wild bees, was published more than 20 years ago and needs to be updated (Anonymous 1992, 2002).

POLLINATOR MONITORING SCHEMES

The NIB in Slovenia is a leading partner of a research project on the significance of wild pollinators – [‘The importance of wild pollinators for crop pollination and sustainable management in agriculture to ensure reliable pollination’](#). NIB has already carried out some monitoring activities, records are kept at the institute and will be accessed as appropriate in the future.

The establishment of monitoring will depend on whether enough government funding is allocated. It is expected that a monitoring scheme will be developed in the framework of a research project supported by the Ministry of the Environment and Spatial Planning, the Ministry of Agriculture, Forestry and the Food and Slovenian Research Agency.

RESEARCH INITIATIVES

Research projects in the past were very focused on honeybees and the Carniolan honeybee subspecies, with little attention to wild pollinators. The [NIB database](#) contains some research projects on the importance of wild pollinators for crop pollination in the years 2016 to 2018.

The National Institute of Biology is carrying out a [research project](#) (2018-2021) to assess the potential exposure of bumblebees and other wild pollinators to pesticides in spraying in the early morning and evening. The aim of this European Food Safety Authority (EFSA) funded project is to provide a very detailed insight into the activity of pollinators in orchards and to provide data needed for better management of plant protection to avoid risks to pollinators.

TAXONOMICAL EXPERTS ON POLLINATORS

The National Institute of Biology (NIB) is leading the work on wild pollinators. Training opportunities for taxonomical identification of wild bees need to be developed as only one centre (The Slovenian Museum of Natural History) can provide expertise.



INITIATIVES TACKLING THE CAUSES OF POLLINATOR DECLINE

ACTION PLANS ON SPECIES AND HABITATS

There are no protection targets for specific wild pollinator species.

FARMER AND LANDSCAPE INITIATIVES, AS WELL AS LOCAL LEVEL STRATEGIES

The [Slovenian Rural Development Programme](#) 2014-2020 includes an option to sow summer crops that provide flowering resources for honeybees throughout the season, and thereby increase their resilience over winter.

The EIP-AGRI funded project [Pollinators for fruit growers and fruit growers for pollinators](#) (2019-2021) aims: (1) To improve the transfer of knowledge into practice about wild pollinators in fruit growing. (2) Establish good practices for the protection of pollinators in orchards. (3) To improve conditions for wild pollinators and increase biodiversity in orchards. (4) Increase the reliability and quality of pollination. The project involves individual fruit growers and companies (see below – private sector initiatives). The project is led by the National Institute of Biology and partners include Zavod Jabolko (Institute for fruit growing and organic farming), the Agricultural Institute of Slovenia, Chamber of Agriculture and Forestry of Slovenia, Slovenian Institute of Hop Research and Brewing, Grm Novo mesto – Centre of Biotechnic and Tourism, Kozjansko Regional Park, and BirdLife Slovenia.

The [Slovenia Operational Programme for EU cohesion policy 2014-2020](#) offers funding for pollinator conservation projects. [Investment priority 6.2](#) Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure is of relevance since it is beneficial for wild pollinators.

Projects funded by the Operational Programme that address pollinators and their habitats include:

- project in [Goričko Landscape Park on butterflies and meadows](#),
- [Projekt PoLJUBA](#) to restore wet meadows and their butterfly fauna,

- project [KRAS.RE.VITA in Notranjski Regijski Park](#).

The National Environmental Protection Programme to 2030 is expected to include actions to reduce the possible problems of importing bees, mainly bumble bees, used for pollination in food production and horticulture.²

MEASURES ON PESTICIDES

The National Action Plan to reduce dependence on the use of plant protection products mentions the Slovenian Rural Development Programme support for organic farming and agri-environment but does not introduce any measures specifically aimed at pollinator protection.



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

TRAINING AND AWARENESS RAISING CAMPAIGNS

The National Beekeepers' Association in Slovenia launched the [World Bee Day initiative](#) in 2014. It was [confirmed](#) first by FAO and after that by the United Nations in December 2017. It is now supported by the Slovenian Ministry of Agriculture, Forest and Food, and its aim is to raise awareness of the importance of bees and other pollinators for food security and biodiversity amongst the general public.

Awareness-raising through World Bee Day means the public is aware of the importance of honeybees and other pollinators for food security and the threats to them. However, awareness-raising, protection initiatives and research are very focused on honeybees and the Carniolan honeybee subspecies, with little attention to wild pollinators.

In [2015 and 2018](#) the NIB organized [expert conferences](#) on wild pollinators and their importance, which were attended by key stakeholders such as the Ministry of Agriculture, Ministry of the Environment,

²Personal communication, 17/10/17, Robert Bolješić, Slovenian Ministry of the Environment and Spatial Planning

Institute for Nature Conservation, Food Safety Authority and representatives from the veterinary and plant protection sectors.³

Although originally focusing on the honeybee, the [Ljubljana's Bee Path](#) initiative has had beneficial spill over effects on a variety of pollinators. Established in 2015, the initiative was accompanied by an awareness-raising campaign on the importance of honeybees for the environment, cultural heritage and economic development. Now consisting of 35 partners, the movement offers advice on sustainable beekeeping and implementation of pollinator-friendly measures also delivering educational programmes in schools (Wilk et al. 2019).

EDUCATIONAL CAMPAIGNS AND MATERIALS ON WILD POLLINATORS

The NIB is at the forefront of activities to promote pollinator diversity and the importance of the role of pollinators in providing ecosystem services⁴. NIB has issued several [publications](#) on wild pollinators such as bumblebees and solitary bees. Examples are:

- [Čmrlji in čebele samotarke - prezrti opráševalci](#) – bumblebees and solitary bees – ignored pollinators
- [Divje čebele – spregledane opráševalke](#) – wild bees – overlooked pollinators
- [Pestrost opráševalcev za zanesljivo pridelavo hrane](#) – pollinator diversity for stable food production
- [Biodiverziteteta nam zagotavlja hrano](#) – biodiversity gives us food

Diversity of pollinators is also promoted through [LIFE Naturaviva, Biodiversity – art of life](#) (2016-2022).

CITIZEN ENGAGEMENT CAMPAIGNS

See above.

PRIVATE SECTOR INITIATIVES FOR WILD POLLINATORS

Fruit producing companies are involved in the EIP-AGRI research project [Pollinators for fruit growers and fruit growers for pollinators](#) (2019-2021): [Darsad doo](#), [Matjaž Škof](#), Stanislav Tojnko, [Radovan Jelina](#), [Anže Legat](#), [Manca Omerzu](#).

APICULTURE SECTOR INITIATIVES FOR WILD POLLINATORS

See above for the World Bee Day Initiative.

³Personal communication, Danilo Bevk, National Institute of Biology in Slovenia

⁴Personal communication, Danilo Bevk, National Institute of Biology in Slovenia

Members of the National Beekeepers' Association launched a book called '[No bees, no life](#)' to promote why bees are so important, which includes information on bees, beekeeping and threats they are currently facing. It is available in Slovenian and English and has input from 69 authors from 32 countries.

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Educational materials

- Bumblebees and solitary bees, NIB Slovenia, Language: Slovenian
- Wild bees, NIB Slovenia, Language: Slovenian https://www.naturaviva.si/wp-content/uploads/2018/02/DIVJE_CEBELE_plakat.pdf
- Honey plants: <http://czs.si/Upload/files/medovite%20rastline.pdf>
- Dying bees, a sign of action: <http://www.czs.si/Files/promocija45.pdf>
- Bees with pollination increase crop yield: <http://www.czs.si/Files/promocija44.jpg>