



## EU POLLINATORS INITIATIVE

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





This document has been drafted by IEEP within the framework of the contract No 07.0202/2018/795538/SER/ENV.D.2 "Technical support related to the implementation of the EU Pollinators Initiative". The information set out in this document is not comprehensive and does not necessarily reflect the official opinion of the Commission, or IEEP. The Commission does not guarantee the accuracy of the data included in this document. Neither the Commission nor IEEP or any person acting on the Commission's behalf, including any authors or contributors of the notes themselves, may be held responsible for the use which may be made of the information contained therein. Reproduction is authorised provided the source is acknowledged.

This document shall be cited as:

IEEP. 2019. Member States initiatives to support wild pollinators populations: Poland. Prepared by IEEP for the European Commission.

Date of completion: 01/12/2019

Acknowledgements: Hajnalka Szentgyörgyi - Institute of Botany, Faculty of Biology at the Jagiellonian University, Marcin Zych Botanical Garden at the University of Warsaw, Anna Gajda - Warsaw University of Life Sciences

### **CONTENTS**

Strategies for wild pollinators or any other similar plans	4
Improving knowledge of pollinator decline, its causes and consequences	4
Initiatives tackling the causes of pollinator decline	7
Raising awareness, engaging society-at-large and promoting collaboration	8
References	10

There is no official strategy for protecting pollinators. A group of scientists prepared a National Strategy for Protecting Insect Pollinators in 2018. Up to now it has not been accepted or supported by the Polish Ministry of Environment.

No formal red list of pollinators has been published. The Red Data Book of Invertebrates published in 2004 includes some pollinating insects. Existing monitoring schemes for Natura 2000 include the butterfly species protected by the EU Habitats Directive, but there is no specific bee or hoverfly monitoring.

The Rural Development Programme for 2014 -2020 (PROW 2014-2020) supports the protection and strengthening of ecosystems dependent on agriculture and forestry. It supports biodiversity conservation through organic farming, afforestation and agri-environment-climate schemes, but no measures are targeted specifically at pollinators. Pollinators may benefit indirectly from integrated pest management aiming at reducing pesticide use in orchards.

The Polish Ministry of Environment decided to lift the ban on using neonicotinoid seed coating on oilseed rape for 120 days in July 2018. The decision was widely criticized by ecologists and beekeepers.

Although there are no actions aiming to protect pollinators or educating the public and raising awareness by national or regional governments, there are numerous municipal, local and NGO led campaigns. Usually, these actions concentrate on educating, planting bee friendly habitats (flowers and meadows) and creating nesting places (bee hotels). Most of them are in urban areas and local communities.



# STRATEGIES FOR WILD POLLINATORS OR ANY OTHER SIMILAR PLANS

There is currently no official national strategy that refers to protecting pollinators in Poland.

In 2018 a document was prepared by a group of scientists under the auspices of Greenpeace Poland entitled National Strategy for Protecting Insect Pollinators (Narodowa Strategia Ochrony Owadów Zapylających). Preparation of the draft strategy was preceded by workshops held in major Polish cities, and the draft version of the Strategy was open for public consultations. The Ministry of Environment initially expressed interest in the preparation of the strategy, but finally it did not support the document. Similarly, the Ministry of Agriculture and Rural Development did not support the strategy. A number of other stakeholders supported the strategy, including the Polish Beekeepers Association, Association of Professional Beekeepers, the Biebrzański and Słowiński National Parks, State Forests, Urban Forests in Warsaw, some of the agricultural advisory centres in Poland, the Faculties of Biology at the Jagiellonian University and the University of Warsaw and the University of Warsaw Botanical Garden.



# IMPROVING KNOWLEDGE OF POLLINATOR DECLINE, ITS CAUSES AND CONSEQUENCES

### **RED LISTS ON POLLINATORS AND DATA ON POLLINATOR POPULATIONS**

The Polish Red Data Book of Animals was published in 2004 and 2009 (Glowacinski and Nowacki 2009). It consists of the Red Book of Vertebrates and the Red Book of Invertebrates. In the latter, the status of some pollinator species is described. There are only a few species of bees and hoverflies mentioned in the Red Data Book and besides two bee species none of them are protected. This does not necessarily mean that the rest of the species are not threatened and do not need protection, but that there is a lack of data concerning these groups, particularly hoverflies, which are generally the least studied groups among pollinating insects.

The rediscovery of the large *Xylocopa violacea* bee species at a number of sites, after it was considered probably extinct in Poland, was covered by the national media. Compared to bees and hoverflies, a relatively high number of butterflies are listed on the Red Data Book, but only half of them are under protection even though most of the species are either endangered or critically endangered (Table X).

Table X. Status of pollinator species and number of protected species per pollinator group as listed on the Polish Red Data Book of Invertebrates (2009).

Category	Bee	Hoverfly species	Butterfly species
	species (protected)	(protected)	(protected)
EX	2 (-)		
EX?	1 (1)		
CR	3 (1)	1 (-)	13 (7)
EN	-	2 (-)	14 (9)
VU	-	2 (-)	16 (8)
LR	-		8 (4)

### **POLLINATOR MONITORING SCHEMES**

There are no national level pollinator monitoring schemes in Poland, but some species of butterflies are monitored as part of <u>Natura 2000 monitoring activities</u> since 2006. No bees or hoverflies have been monitored so far during these activities.

There are some scientific descriptions of local or regional bee and hoverfly fauna in Poland, especially in the National Parks. The list of Apoidea recorded in National Parks can be found in Table Y.

Table Y. Park area and number of Apoidea species recorded in Polish National Parks (modified after Banaszak et al., 2004).

National Park	Area (ha)	No. species	Publications
Babiogórski NP	3 392	110	Dylewska 1966
Białowieski NP	10 502	98	Bischoff 1925
Bieszczadzki NP	29 200	90	Banaszak 1969; Kosior 1980, 2002;
			Wiśniowski 2000
NP "Bory Tucholskie"	4 789	101	Banaszak, Wendzonka 2002
Kampinoski NP	38 544	180	Banaszak, Plewka 1981
Narwiański NP	7 350	136	Banaszak, unpublished.
Ojcowski NP	2 146	232	Dylewska, Wiśniowski 2003; Wiśniowski,
			Inf. Ustna
Pieniński NP	2 346	171	Dylewska 1962; Dylewska, Noskiewicz
			1963
Tatrzański NP	21 164	165	Dylewska 1958, 1991; Noskiewicz
Wielkopolski NP	7 620	226	Banaszak 1987; Cierzniak 2003
Wigierski NP	15 085	191	Banaszak, Krzysztofiak 1996
Woliński PN	10 937	75	Banaszak 1973

The Kazimierski Landscape Park and Natura 2000 site Lesser Poland Gorge of the Vistula (PLH 060045) has recently published a list of its wild bee fauna (BORAÑSKI et al 2019).

#### RESEARCH INITIATIVES

Some recent research initiatives and studies aiming at pollinators and drivers of pollinator decline:

- Meadow Biomonitoring Group led by Dr. Tadeusz Pawlikowski, Copernicus University in Torun
- Maculinea butterfly monitoring in Kraków since 2004 led by Dr hab. Piotr Nowicki, Jagiellonian University
- Wetland bee monitoring in Kraków for ALARM project 2004- 2005 led by Prof. dr hab. Michał Woyciechowski, Dr Dawid Moroń and Dr hab. Hajnalka Szentgyörgyi, Jagiellonian University
- Effects of anthropogenic pollution of the environment on bees led by Dr hab. Hajnalka Szentgyörgyi, Jagiellonian University
- Nutritional demands of wild bees led by Dr Michał Filipiak, Jagiellonian University
- Ongoing pollination network projects (urban, forest and meadow habitats) focusing also on the effects of habitat quality on pollinators by Dr hab. Marcin Zych lab, University of Warsaw
- Wild bees, butterflies and hoverflies in urban areas led by Dr Weronika Banasza-Cibicka,
   Poznań University of Life Sciences
- The effects of invasive species on pollinator populations led by Dr hab. Dawid Moroń, Institute
  of Systematics and Evolution of Animals, Institute of Nature Conservation Polish Academy of
  Sciences

#### TAXONOMICAL EXPERTS ON POLLINATORS

#### <u>Bees</u>

Dr hab. Waldemar Celary - Jan Kochanowski University in Kielce

Dr Tadeusz Pawlikowski – Nicolaus Copernicus Univesity in Toruń

Prof. dr hab. Józef Banaszak - Kazimierz Wielki University in Bydgoszcz

Dr hab. inż. Bogdan Wiśniowski, University of Rzeszów

Dr Andrzej Kosior – Institute of Nature Conservation Polish Academy of Sciences

Dr Anna Krzysztofiak - Wigry National Park

Dr Weronika Banaszak - Cibicka, Poznań University of Life Sciences

#### **Butterflies**

Dr Łukasz Przybyłowicz - Institute of Systematics and Evolution of Animals Polish Academy of Sciences

Prof. dr hab. Jarosław Buszko – Nicolaus Copernicus University in Toruń

Prof. dr hab. Józef Razowski Institute of Systematics and Evolution of Animals Polish Academy of Sciences

Prof dr hab. Janusz Nowacki - University of Life Sciences in Poznań

Prof. Bogdan Jaroszewicz - Białowieża Geobotanical Station, University of Warsaw

### Hoverflies

Dr Andrzej Palaczyk - Institute of Systematics and Evolution of Animals Polish Academy of Sciences
Dr Łukasz Mielczarek - Krakow Municipal Greenspace Authority, Poland
Robert Żóralski – private taxonomist
Jan Krzysztof Kowalczyk – private taxonomist

### Muscid flies

Prof. Krzysztof Szpila - Department of Ecology and Biogeography, Nicolaus Copernicus University, Toruń

Dr Andrzej Grzywacz - Department of Ecology and Biogeography, Nicolaus Copernicus University, Toruń



# INITIATIVES TACKLING THE CAUSES OF POLLINATOR DECLINE

### **ACTION PLANS ON SPECIES AND HABITATS**

None identified.

### FARMER AND LANDSCAPE INITIATIVES, AS WELL AS LOCAL LEVEL STRATEGIES

There are no farmer or agricultural initiatives in Poland aiming at protecting wild pollinators, but more and more cities, especially Warsaw and Kraków are creating flowering strips and meadows, as well as building bee hotels to provide food and nesting place for bees and to other pollinators.

National Parks managers are also starting to show interest in pollinators protection. One of the most interesting initiatives is the saving and protecting of ground nesting wild bee habitats in the Wigry National Park together with the "Czarna Hańcza" Cultural and Environmental Association. The project aims to protect rammed earth houses and create new nesting habitats for bees.

### **MEASURES ON PESTICIDES**

The basic Polish act is the <u>Act of 8 March 2013 on plant protection products and its Appendix the</u>
National Action plan to reduce the risk associated with the use of plant protection products, in line

with EU Directive 1107/2009. The NAP includes a measure to produce a Good Plant Protection Practice Guide that explains how to protect pollinating insects during the application of plant protection products. The measures are aimed at reducing incidents of direct poisoning of honeybees from pesticides.

Unfortunately for pollinators, the Minister of Agriculture and Rural Development used derogations in 2018 to continue use of some banned neonicotinoid insecticides (Modesto 480 FS and Cruiser OSR 322 FS) as seed treatments on rapeseed, against the petitions of beekeepers and ecologists.



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

### TRAINING AND AWARENESS RAISING CAMPAIGNS

During the last few years numerous campaigns have been organized, mostly by local or national NGOs. On the national level Greenpeace has started Adoptuj pszczołę ("Adopt a bee") to raise funds for pollinator friendly actions (bee hotels, flower meadows etc.) and for preparation of the national pollinator strategy. On a more regional level, Green Action (Zielona Akcja) working mostly in Southern Poland ran a project "Bees asking for help" (Pszczoły proszą o pomoc) between 2014 and 2016. They organised conferences and workshops for the public about bees and other pollinators and provided educational materials online.

Many Polish cities (Warszawa, Kraków and Poznań but also small towns and villages) create pollinator friendly margins, road strips, meadows, prepare bee hotels in parks, and promote urban beekeeping. For instance, the Meadow Foundation (Fundacja Łąka) has created over 200 flower meadows, 400 bee hotels and run workshops on wild pollinators for over 5000 participants. These actions are often supported via citizen budget. Another example is <a href="the city of Poznań">the city of Poznań</a>, which is working with nursery schools and kindergardens to convert their grounds into eco-gardens for pollinators. The local community and the students collaborate in the planning, construction and management of the spaces (Wilk et al. 2019).

Universities have organised a number of actions:

• The Botanic Garden of the University of Warsaw organises educational festivals entitled "Plants, insects and honey" since 2007.

- The University of Agriculture in Kraków runs an annual conference for stakeholders and interested public since 2016 about protecting bees, beekeeping and creating a discussion platform for stakeholders.
- The Jagiellonian University in Kraków created flowering strips and wild bee hotels on the territory of the new Campus of the 600th Anniversary of the Jagiellonian University Revival.

### **EDUCATIONAL CAMPAIGNS AND MATERIALS ON WILD POLLINATORS**

See above.

### **CITIZEN ENGAGEMENT CAMPAIGNS**

Greenpeace organises various citizen engagement campaigns in the country, while locally the Green Action (<u>Zielona Akcja</u>) project "Bees asking for help" (<u>Pszczoły proszą o pomoc</u>) has planted flowers, trees, and built bee hotels with local communities in Southern Poland.

The Greenpeace campaign included a citizen science component called "The Great Pollinator Index" (<u>Wielki Spis Zapylaczy</u>) for recording pollinator data. Citizens identified pollinators at very broad taxonomic categories (bumblebees vs. honeybees vs. solitary bees).

### PRIVATE SECTOR INITIATIVES FOR WILD POLLINATORS

There are some companies adding bee friendly actions to their portfolio.

One of the largest among them is Kujawski Oil (producer of edible oils) running the "Helping Bees with Kujawski Oil" project.

The sweet production company Fabryka Cukierków Pszczółka launched the "Bee smart" – <u>ratujmy pszczoły</u> project.

A bee breeding company BioDar is taking part in research on how to breed various wild bee species and is raising public awareness through various campaigns.

### APICULTURE SECTOR INITIATIVES FOR WILD POLLINATORS

There are some initiatives across the country. One of the biggest is the Cracovian Honey Collection (Krakowskie Miodobranie). It is an annual weeklong programme usually at the end of August or beginning of September organized by local beekeepers in Krakow to promote beekeeping, protecting bees and raise public awareness.

In the last few years, the State Forest and its smaller administrative units started projects aiming at increasing the provisional capacity of forests for bees and encouraging beekeepers to use the resources of polish forests. The projects are focused on honeybees.

- Bees returning to the Forest (Pszczoły wracają do lasu) project run by the State Forest. As a first step the foraging capacity of various state forests was studied (focusing on *A. mellifera*) and a plan for planting nectar giving plants and shrubs is being prepared.
- Traditional beekeeping: rescue of wild bees in the woods project run by the Forest district
  Augustów, aiming to place traditional beehives (wooden logs with holes) in the state forests
  to enhance the growth of wild or feral honeybee populations.

### REFERENCES

Banaszak et al. 2004 A review of inventory research on insects in the national parks of Poland. Wiad. Entomol. 23 Supl. 2: 5-56

BORAÑSKI et al (2019) Wild bees of the proposed nature reserve "Skarpa Wioelana" in Mêæmierz (Kazimierski Landscape Park). Part 1 – long-tongued bees Megachilidae and Apidae. *Acta Zoologica Cracoviensia*, 62(2) 2019. https://doi.org/10.3409/azc.62.02

Buszko J, Masłowski J (2015) Motyle dzienne Polski. Koliber, Nowy Sącz, Poland

Buszko J, Nowacki J (2002) Lepidoptera—motyle. In: Głowaciński Z (ed) Red List of threatened animals in Poland. Polish Academy of Sciences, Institute of Nature Conservation, Cracow, pp 80–87

Głowaciński Z and Nowacki J (2009) Polish Red Data Book of Animals. Institute of Nature Conservation PAS, Kraków. http://www.iop.krakow.pl/pckz/defaultadf8.html?nazwa=default&je=en

Wilk, B., Rebollo, V., Hanania, S. (2019). A guide for pollinator-friendly cities: How can spatial planners and land-use managers crate favourable urban environments for pollinators? Guidance prepared by ICLEI Europe for the European Commission

### **Educational materials**

Not identified.