

EBMS GROWING: SPRING PROJECT

EUPOMS – EUROPEAN POLLINATOR MONITORING SCHEME

The European Commission adopted the **EU Pollinators Initiative (EPI)** in 2018, with a key action to set up a monitoring mechanism for pollinators, with indicators to enable evaluation of actions taken to tackle the decline of pollinators.

One of the objectives was the production of a <u>Proposal to stablish the</u> <u>European Pollinator</u> <u>Monitoring Scheme</u> with standardize methods to apply across the EU. Europe supports a rich diversity of wild pollinators, which provide wide societal benefits calculated in more than €15 billion per year of European crops, pollinating around 78% of wild flowering plants. However, there is a big lack of knowledge regarding the status and trends of pollinating insects. There is little data on changes in abundance; butterflies are the best monitored pollinator group but



abundance monitoring is only available for around half of the EU Member States. For this reason, it was essential to create a standardised **EU pollinator monitoring scheme** to overcome outstanding knowledge gaps.

EU POLLINATOR MONITORING SCHEME (EU-POMS)

During 2020 an expert group of 21 people from 12 European countries worked together to produce the <u>Proposal for a European Pollinator</u> <u>Monitoring Scheme (EUPoMS)</u>. In this report are the findings and conclusions on how to stablish this EUPoMS based on standardized methods, taxonomic groups and all relevant agreements on how to apply it in the different EU countries. The objectives are to:

(i) develop a cost-effective Core Scheme which includes the most relevant taxa, is able to detect changes in the status of pollinators, has EU-wide coverage, and uses standardised sampling methods

(ii) provide a set of additional modules for other taxa and measures beyond the Core Scheme

(iii) propose a general EU indicator to assess status and trends of pollinators, and a Common Agricultural Policy specific indicator to evaluate the impacts of the CAP, and the measures implemented within, on both pollinators and pollination

(iv) provide estimated costs for establishing and implementing the Core Scheme, considering: staff, equipment, travel, taxonomic, training, data management and coordination costs.



EU SERVICE CONTRACT: SPRING 2021-2023

The SPRING project (**S**trengthening **P**ollinator **R**ecovery through **IN**dicators and monitorin**G**) was born for setting up the first stones for the implementation of the EU Pollinator Monitoring Scheme in all the Member States in Europe and also, for strengthening the taxonomic capacity of pollinating insects as a key element to understand the pollination service.

"Butterflies are the best monitored pollinator group"

The design of the SPRING project is based on the <u>Proposal for a European Pollinator Monitoring Scheme</u> (<u>EUPoMS</u>) of the expert group (Potts et al. 2020) and compiles a series of tasks to achieve the main objectives. The SPRING project is funded by a service contract from the European Union Directorate General for the Environment. The project report will make recommendations for establishing a scientifically robust and sustainable EU-PoMS that will provide a series of indicators, capable of detecting any significant changes in the abundance of pollinators across the whole of the EU.

THE CORE SCHEME OF SPRING PROJECT

 Expanding the European Butterfly Monitoring Scheme (eBMS) by creating new schemes in 6 EU countries: Denmark, Greece, Latvia, Lithuania, Slovakia and Romania. This will achieve complete coverage of eBMS partnerships in all EU Member States. It will also provide ongoing support to the 10 national schemes that were set up under the ABLE project. Butterfly monitoring uses standardised transects and is mostly carried out by trained volunteers as a form of citizen science.



2. **Building up the capacity of citizen science networks on pollinators across Europe**. Some EU countries have a strong baseline of citizen science whereas other countries, particularly in southern and eastern Europe currently have very little citizen science capability. The project will recruit and train more coordinators and volunteers across Europe who are willing to collect data on butterflies, moths, wild bees and hoverflies from the field and report it to the newly developed online database.

- 3. **Organising advanced taxonomic training** to the next generation of taxonomists in Europe, with a focus on wild bees and hoverflies. The aim is to achieve a minimum expert capacity in each EU Member State that can deliver the EU Pollinator Monitoring Scheme (EU PoMS). The experts will be capable of identifying most specimens to species level, with support from the established advanced taxonomy institutes for the remainder of the specimens.
- 4. **Piloting a Minimum Viable Scheme (MVS) for wild bees, butterflies and hoverflies** by monitoring at a small number of sites in every EU Member State, using standardised transects walked by professionals and volunteers. Wild bees and hoverflies will also be monitored by professionals using pan traps.



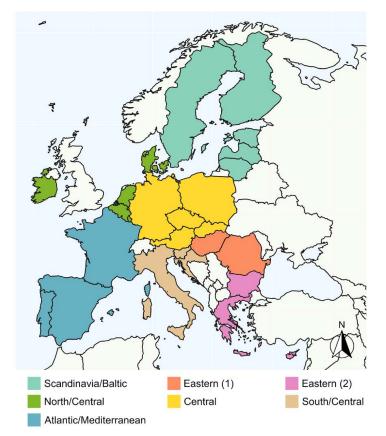
- 5. **Monitoring rare and threatened species** by professionals using a variety of species-specific methods.
- 6. **Monitoring moths by volunteers using light traps**. Setting up robust monitoring of moths across the EU will be a complement of the MVS. A standardised LED trap for capturing moths will be tested for its use in different habitats and climates.

To ensure representative coverage across all biogeographical zones, Europe has been divided into 6 regions with the lead country shown in bold (see map):

- Region 1. Scandinavia/Baltic: **Sweden**, Lithuania, Latvia, Finland, Estonia
- Region 2. Eastern 1. Hungary, Romania
- Region 3. Eastern 2. **Greece**, Bulgaria, Cyprus
- Region 4. Atlantic/Mediterranean. **Spain**, France, Portugal
- Region 5. North/Central. Netherlands, Belgium, Denmark, Ireland, Luxembourg.
- Region 6. Central. **Germany**, Czech Republic, Austria, Poland, Slovakia
- Region 7. South/Central. **Italy**, Croatia, Malta, Slovenia

As well as the Core Scheme, the SPRING project will include 3 additional modules:

 Pollination services will be measured directly by professionals.



- Flower visits will be monitored by volunteers using timed counts.
- Wider insect biodiversity will be measured by professionals using malaise traps.

LARGE COLLABORATION

The SPRING project is led by the <u>Helmholtz Centre for Environmental Research (UFZ, Germany)</u>, working with 18 partners: the <u>Université Libre de Bruxelles (Belgium)</u>, the <u>University of Mons (Belgium)</u>, the <u>University of Helsinki (Finland)</u>, the <u>Finnish Museum of Natural History (LUOMOS, Finland)</u>, the <u>Senckenberg Research Institute (Germany)</u>, the <u>University of The Aegean (Greece)</u>, the <u>Centre for Ecological Research (CER, Hungary</u>), the <u>Council for Agricultural Research and Economics - Research Centre for Agriculture and Environment (CREA-AA, Italy</u>), the <u>Naturalis Biodiversity Centre (Netherlands</u>), the <u>European Invertebrate Survey (EIS, Netherlands</u>), the <u>University of Novi Sad (Serbia</u>), the <u>Ecological and Forestry Application Research Centre (CREAF, SPAIN</u>), the <u>University of Alicante (Spain)</u>, <u>Lund University (Sweden)</u>, the <u>UK Centre for Ecology and Hydrology (UKCEH, UK</u>), the <u>University of Reading (UK)</u>, <u>Butterfly Conservation Europe (BCE)</u>, <u>Dutch Butterfly Conservation</u>, and <u>Butterfly Conservation (UK)</u>.