

Service contract for « Capacity Building in Pollinator Taxonomy - lot 1: Capacity building in wild bee (Apoidea) para-taxonomy »

Contract No 090201/2024/927644/SER/ENV.D2

EPIC-Bee



Introduction

The general objective of the project EPIC-Bee is to strengthen, in 24 months, the para-taxonomic capacity in the 27 EU Member States in wild bee identification, to support preparation for the implementation of the EU Pollinator Monitoring Scheme. The specific objective is to undertake training activities that will enable a critical mass of experts to identify this pollinator group to species level. Para-taxonomic experts should become available in all EU Member States. Many pollinator species cannot be reliably identified to species level in the field. Therefore, appropriate capacity must be established both for field and laboratory work.

This project devises and executes a series of tasks in line with the EU-PoMS proposal as a major contribution to the EU initiative to address the decline in pollinating insects and the EU Biodiversity Strategy for 2030.

The present inception report includes the general structure of the project and a description of the training program, listing the type of courses to be offered. A short policy describing the way in which we will safeguard processing of personal data during contract implementation is also proposed.

Spatial organisation

We will organise the training in a regional framework. We cluster countries according to similar regional faunas and similar current taxonomic capacities. The 27 Member States of the European Union have been grouped into 6 regions (Figure 1).

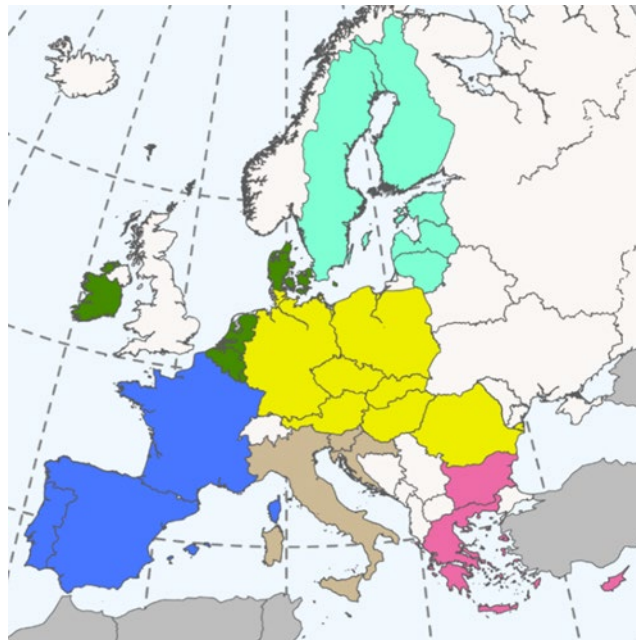


Figure 1. Geographical framework of the project (i.e. EU 27). Member States are colour-coded according to the region.

The countries included in each region are:

Region 1. Scandinavia/Baltic: Sweden, Lithuania, Latvia, Finland, Estonia.

Region 2. Eastern 2: Greece, Bulgaria, Cyprus.

Region 3. Atlantic/Mediterranean: Spain, France, Portugal.

Region 4. North/Central: Netherlands, Belgium, Denmark, Ireland, Luxembourg.

Region 5. Central: Germany, Czechia, Austria, Poland, Slovakia, Hungary, Romania.

Region 6. South/Central: Italy, Croatia, Malta, Slovenia.

Course levels

We will develop a training program based on different levels of expertise. The different levels considered in the project are shown in Figure 2. During EPIC-Bee, training courses will cover levels from 1 to 3.

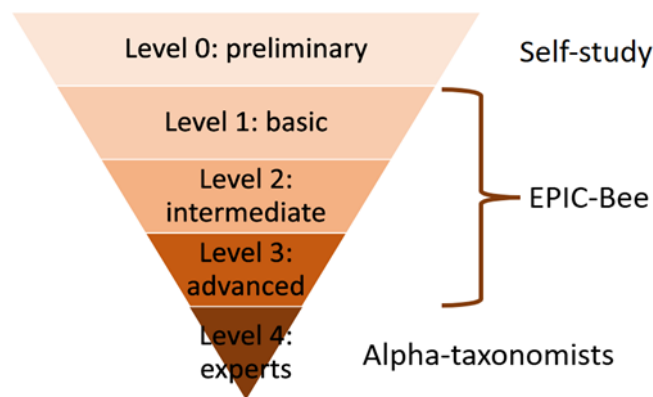


Figure 2. Representation of the 5 levels of expertise considered during EPIC-Bee.

- **Level 0. Preliminary level.** This is the preparatory level for people without experience in entomology. No course will be developed during EPIC-Bee for this level. They will be self-trained using online tools to learn what bees are, how to separate them from other insects, and how to separate males from females.
- **Level 1. Basic level.** People entering this level show some background in working with bees. Training at basic level will include field excursions aimed at practicing identification of specimens at genus level in the field, as well as practical experience in collecting specimens and preparing them (e.g. pinning, labelling) for later laboratory examination. The goal is to train identification to genus level plus some common species.
- **Level 2. Intermediate level.** People entering this level show experience in bee identification at the genus level, and for some easy and common species. Training at intermediate level will aim at the determination at species level using keys and reference collections. At the end of the course participants will be able to identify most species in

their Member State (or region within the country, for countries with more than 500 bee species) by examining collected specimens in the laboratory.

- **Level 3. Advanced level.** Advanced courses will focus on taxa and regions where there is currently a lack of para-taxonomic expertise, i.e. species groups that are difficult to identify, and geographic regions where para-taxonomic expertise is poorly developed (i.e. southern countries). Advanced courses also aim to enable advanced experts (alpha-taxonomists) to train advanced para-taxonomists (“train the trainers”), which will help upscaling the capacity building for the rollout of EU-PoMS. **The people attending the advanced courses will be the trainers of the intermediate courses.**
- **Level 4. Experts.** People need years of self-study and practice to reach this level, where they have a sufficient command of the fauna (or part of it) where they can describe new species for science or conduct revisionary taxonomic work (alpha-taxonomists). This level is beyond the scope of EPIC-Bee. Alpha-taxonomists will be employed to be the trainers during the advanced courses.

Implementation of the training program

In total, we developed a program for 10 basic courses, 16 intermediate courses and 9 advanced courses, resulting in a total of 35 courses. The training program (i.e. number of training sessions in each region, number of training sessions per trainee) is adapted to the level of the regional trainees, the bee species richness in the Member State or region, and the current level of knowledge. Courses are organized at the regional level, as the regions described above for basic and intermediate courses (Table 1). Advanced courses will all take place in Mons (Belgium) and will host participants from all MSs.

We prioritize the intermediate level, where more courses are dedicated, and focus on the species determination at a regional level.

Table 1. Number of basic and intermediate courses per region.

Regions	Basic	Intermediate
Scandinavia/ Baltic (1)	1	2
Eastern (2)	2	3
Atlantic/ Mediterranean (3)	2	3
North/Central (4)	1	2
Central / Eastern (5)	2	3
South/Central (6)	2	3

The training courses will host typically 10-15 participants. The length of the courses is always 5 full days (meaning travel dates on the day before starting and the day after finishing). Dates are all confirmed except for a few courses in 2026. Details on the dates and organisers of the courses are provided in tables 2-4.

Training activities will be primarily offered in the English language, but additional languages could be offered for basic and intermediate training sessions in certain regions or Member States if there is no sufficient interest from participants with sufficient command of English language to participate in training courses.

A strong effort will be made to create the content necessary to implement the courses (identification keys to species level, national species lists, PowerPoint presentations, self-study material, photo and video material, reference collections, etc). All the content created during the project will be hosted in the Pollinator Academy: <https://pollinatoracademy.eu/> and will be available to the public.

Table 2. Bee basic courses: the target regions, the organising institutions and the dates of each training.

Region	Organisers	Dates
South/Central	ECOI (Malta)	7-11 April 2025
Eastern	UAEGEAN (Greece)	5-9 May 2025
Eastern	CUT (Cyprus)	12-16 May 2025
Central/Eastern	CU (Czechia)	2-6 June 2025
South/Central	Slobees (Slovenia)	2-6 June 2025
Scandinavia/Baltic	NRCL (Lithuania)	9-13 June 2025
Atlantic/Mediterranean	CREAF (Spain)	2-6 June 2025
North/Central	UMONS (Belgium)	16-20 June 2025
Atlantic/Mediterranean	UC (Portugal)	7-11 July 2025
Central/Eastern	CU (Czechia)	1-5 September 2025

Table 3. Bee intermediate courses: the target regions, the organizing institutions and the dates of each training.

Region	Organisers	Dates
South/Central	UMONS (Belgium)	12-16 January 2026
South/Central	UMONS (Belgium)	26-30 January 2026
North/Central	UMONS (Belgium)	9-13 February 2026
North/Central	UMONS (Belgium)	16-20 February 2026

Scandinavia/Baltic	uTartu (Estonia)	2-6 March 2026
Scandinavia/Baltic	NRCL (Lithuania)	23-27 March 2026
Central /Eastern	CU (Czechia)	27 April - 01 May 2026 (to confirm in January 2026)
Eastern	UAEGEAN (Greece)	25-29 May 2026
South/Central	UMONS (Belgium)	25-29 May 2026
Atlantic/Mediterranean: [geographical region: central and southern FRANCE]	Naturalis (Netherlands)	1-5 June 2026
Central /Eastern	CU (Czechia)	1-5 June 2026 (to confirm in January 2026)
Eastern	CUT (Cyprus)	1-5 June 2026
Atlantic/Mediterranean: [geographic region: central and eastern SPAIN]	Naturalis (Netherlands)	22-26 June 2026
Atlantic/Mediterranean: [geographical region: western SPAIN and PORTUGAL]	Naturalis (Netherlands)	13-17 July 2026
Eastern	UAEGEAN (Greece)	13-17 July 2026
Central /Eastern	CU (Czechia)	31 August - 04 September 2026 (to confirm in January 2026)

Table 4. Bee advanced courses: taxa covered, the regions invited and the dates of each training.

Bee Taxa	Invited regions	Dates
Other (Melittidae, Rophitinae, Panurginae, Ancylaini, Nominae ...)	All	18-22 August 2025
Bumblebees	1, 4 and 5	8-12 September 2025
Xylocopinae and Eucerini	2, 3, 5 and 6	15-19 September 2025
Halictini	All	29 September - 3 October 2025

Colletidae	All	20-24 October 2025
Brood parasitic bees	All	24-28 November 2025
Andrena	All	1-5 December 2025
Anthophorini, Melectini	2, 3, 5 and 6	12-16 January 2026
Megachilidae	All	26-30 January 2026

Certificates

A certification scheme for para-taxonomists coordinated with EPIC-Fly and EPIC-Butterfly will be developed. Overall, we aim to develop a scheme that can be maintained in the long term and strengthen Member States connections for EU-PoMS. The certificates issued during the project will not be issued by a formal education system (University, or other), but by the project itself.

We will provide 3 types of certificates:

- **Attendance.** The attendance certificate will be delivered based on the signature of attendance of the training.
- **Basic level.** The basic level certificate will be delivered when the candidate is able to recognise on-line and/or in laboratory conditions all the genera recorded in his respective country.
- **Advanced level.** The advanced level certificate will be delivered to candidate able to determine at least 70% of all bee species that are visually distinguishable using a microscope, with the limit of 500 species for countries with highly diverse bee fauna (i.e. Austria, Bulgaria, Croatia, Czechia, France, Germany, Greece, Hungary, Italy, Portugal, Romania, Slovakia and Spain; countries with more than 500 bee species).

The basic and advanced level certificates will involve an evaluation in person in laboratory conditions, using identification keys and reference collections. For trainees who are immediately ready for the evaluation, we will organise the session right after the training session. We will also organise a session at UMONS at the end of the project for trainees needing more time to reach the level. This final session of evaluation will be fully open, to trainees from the EPIC-Bee project but also people outside of this program.

Selection criteria for participants

For the EPIC-Bee courses, previous knowledge and experience on bee identification are fundamental. Applicants need to have a minimum of expertise:

- They need to know general entomology
- They need to have experience in working with insect collections
- They need to know how to use binoculars
- They need to know how to use dichotomous keys
- They need to know how to recognise bees from other insects
- They need to know how to separate male from female bees

The minimum expertise will be evaluated as a yes/no criteria. People without a sufficient background will be excluded from the selection process. Mastery of English level will be compulsory for the courses given in that language.

If they reach the minimum level, candidates can apply for the level they find suitable, but they may need to pass a test in order to finally direct them to course they suit best. Please note, the level for which they are selected might not be the level for which they apply. Assigning the people to the corresponding level will maximise the efficiency of the learning and of the trainings.

Surveys for the future pollinator monitoring scheme are likely to require full time employment (at least during the field season). Preference will be given to applicants that have an employment situation allowing them to undertake future surveys of the pollinator monitoring scheme (or that could become trainers for other surveyors). Applicants should explain how they intend to carry out the surveys.

Nomination of applicants and deadlines

The information needed from the nominated applicants is:

- Name
- Country
- Affiliation (recommended but not necessary)
- Email
- Involvement of this person in EU-PoMS
- A paragraph describing this person's expertise in wild bee identification
- English level

Ideally, each Member State should nominate at least 5-10 applicants.

The main deadline for applications is February 28th, 2025. The selection of trainees will take place in the first half of March. Nominations made at a later stage will be considered only as far as there are vacancies on the course targeted, and never later than three months before the course.

Nominations can be sent to: sarah.lescot@umons.ac.be

Alternatively, an application form will be available for the basic courses in the Pollinator Academy (link will be available in the coming weeks).