Introduction

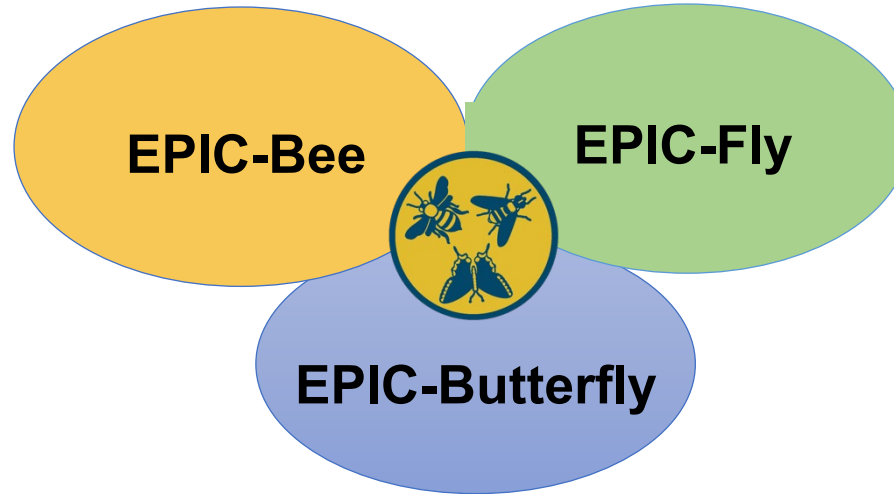**E**uropean **P**ollinator **I**dentification **C**ourses

The main objective of the **EPIC** project is to strengthen the para-taxonomic capacity of in EU Member States, and support preparation for the implementation of the EU Pollinator Monitoring Scheme (EUPoMS).

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University of Mons (Belgium)

EPIC-Bee

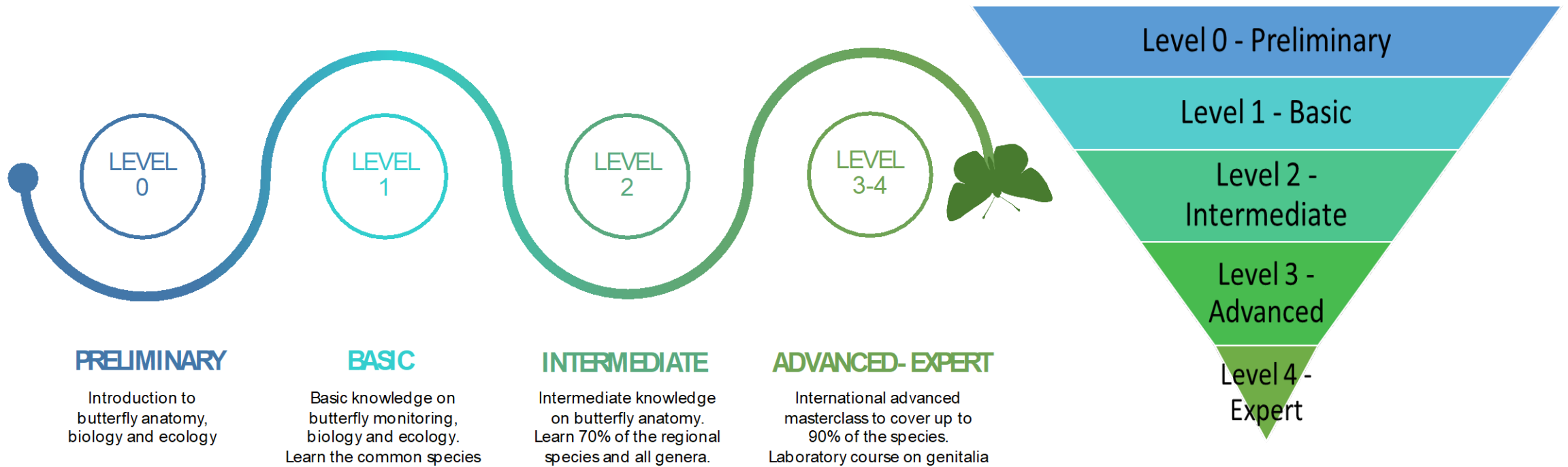**EPIC-Fly**

University of Alicante (Spain)

EPIC-Butterfly

▶ Three separated lots: independent but common background (SPRING project)

▶ Common parts: Certification and common platform resources – Pollinator Academy

Partners EPIC-Butterfly

Target countries (field courses)

Collaborators

Developing the Training Programme

LEVEL 0

LEVEL 1

LEVEL 2

LEVEL 3-4

PRELIMINARY

Introduction to butterfly anatomy, biology and ecology

BASIC

Basic knowledge on butterfly monitoring, biology and ecology. Learn the common species

INTERMEDIATE

Intermediate knowledge on butterfly anatomy. Learn 70% of the regional species and all genera.

ADVANCED-EXPERT

International advanced masterclass to cover up to 90% of the species. Laboratory course on genitalia

Level 0 - Preliminary

Level 1 - Basic

Level 2 - Intermediate

Level 3 - Advanced

Level 4 - Expert

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Content

Preliminary	Basic	Intermediate	Advanced	Expert
E-learning Biology	E-learning Identification	E-learning Identification	E-learning Identification	E-learning Laboratory
E-learning Anatomy	E-learning Biology	E-learning Techniques & conservation	Online masterclass	Training in lab
	E-learning Techniques & conservation	Two webinars		
	Webinar	Field excursion		
	Field excursion			

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Detailed content

preliminary ▷ **Level 1** ▷ **Level 3**

Pollinator monitoring-EU PoMS
1. The core scheme
2. Standardised methods
3. Taxa and measures

Butterfly anatomy

Butterfly or moth
1. Antennae
2. Wing position

Butterfly Bodies - the basics
1. Head
2. Legs
3. Wing parts, colour and veins.
4. Abdomen

Female or male butterfly
1. Sexual dimorphism
2. Differences in wing colour
3. Differences in number of spots
4. Differences in body size
5. Differences in scen scales

PRACTISE
Butterfly anatomy

Spotting the difference: common butterfly species (level 1)
Identification based on morphology, distribution and phenology.

Butterfly homes: habitats and adaptation (level 1)
1. Butterfly richness
2. Butterfly hábitats
3. Common vs rare species

Discovering Europe's butterfly families (level 1)
1. When butterfly appeared
2. What is a family
3. Main characteristics of families
4. Recognise the 6 families

PRACTISE
Butterfly diversity, families and common species

Recap Butterfly Anatomy (level 1)

PRACTISE
Butterfly species intermediate

Terminology Butterfly parts
1. Wing parts and veins in detail
2. Leg parts in details
3. Head and abdomen parts in detail

All butterfly genera
Morphological differences to identify 100% butterfly genera of the couttry

Butterfly intermediate level species
Identification of 70% of all regional species

Butterfly advanced level species (incl. Rare spp)
Identification of 90% of all regional species

PRACTISE
Butterfly species advance

Lab Level (4)

Laboratory course
1. Material
2. Preparation of individuals
3. Extraction of genitalia
4. Identification of specimens

Butterfly identification

Counting butterflies the transect Method (level 1)
1. The transect method
2. The counts
3. Submitting the counts

The importance of butterflies: value and threats (level 1)
1. Threats (list)
2. Habitat management
3. Favourable practices

Butterfly conservation II
1. Butterfly population trend (GBI)
2. Threats (dev. Climate change)
3. Conservation status (red list)

Butterfly Techniques & Conservation

Butterfly Biology

Lepidoptera cycle
1. Learn life cycle (4 stages)
2. Main characteristics of different stages
3. Longevity

Butterfly Biology/Ecology I
1. Foodplant relationship
2. Larval and adult diet
3. Reproduction

PRACTISE
Butterfly biology

The role of butterflies in ecosystems (level 1)
1. Food chain
2. Pollination
3. Bioindicators

The life of Butterflies: seasons, survival and signals (level 1)
1. Voltinism and phenology
2. Butterfly populations
3. Migration
4. Mimetism

PRACTISE
Lepidoptera biology

Type of courses:
- MINI-Learnings 5 - 10 minutes online
- Workshop   *Open to everyone*
- Field work

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E-learning – Pollinator academy

Butterfly Courses

About the courses

The butterfly courses are provided by the EPIC-Butterfly consortium, which consists of three partners and 11 collaborators. The coordination of this project is handled by the UK Centre for Ecology & Hydrology (UKCEH), in collaboration with Butterfly Conservation Europe (BDE) and Office Pour les Insectes et leur Environnement (OPIE). The objective of the training activities is to establish a network of experts in Europe who are able to identify butterflies to species level. Para-taxonomic experts are required in all EU Member States to facilitate the implementation of the European Pollinator Monitoring Scheme (EUPoMS) in the future.

Preliminary	Basic	Intermediate	Advanced	Expert
E-learning Biology	E-learning Identification	E-learning Identification	E-learning Identification	E-learning Laboratory
E-learning Anatomy	E-learning Biology	E-learning Techniques & conservation	Online masterclass	Training in lab
	E-learning Techniques & conservation	Two webinars		
	Webinar	Field excursion		
	Field excursion			

The training program

Online lessons & webinars

Butterflies can be identified at the species level with the proper training. EPIC-Butterfly focuses on online training to provide the necessary knowledge on butterfly anatomy, biology, ecology, and monitoring. This is followed by webinars with experts and field excursions to practice the learned skills.

Who is it for?

The training program targets high-priority countries, primarily in Eastern Europe, where there is currently a shortage of para-taxonomists with the expertise necessary to contribute to the EUPoMS. The target countries for training courses during the 2025-2026 period are: Bulgaria, Croatia, the Czech Republic, Slovakia, Greece, Hungary, Latvia, Lithuania, Poland, Romania, and Slovenia. However, the e-learning lessons are open to everyone.

To register, please click here →

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E-learning – Pollinator academy

Start your course now

Self-study E-learning
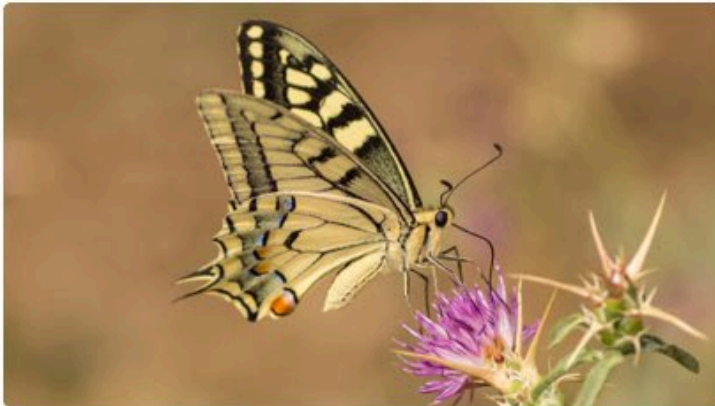
Preliminary
Introduction to biology & anatomy
Start →

Basic
Identification of families and common species
Start →

Advanced levels
Topics at intermediate, advanced & expert levels
Opens soon →

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Level 0

Self-study (preliminary)

An introduction to the biology and anatomy of butterflies

Butterfly Biology

25 min.

Select language:
Czech, Croatian, German, Slovenian

English →

Butterfly Anatomy

25 min.

🌐 English

Start →

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Level 1

Butterfly Identification

Butterfly families in Europe
12 min.

🌐 English   Start →
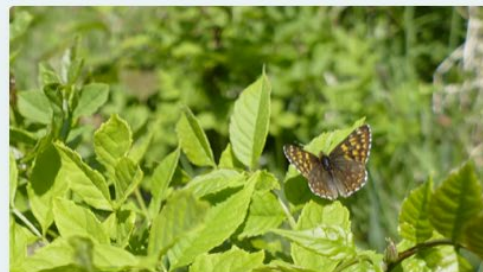
Butterfly habitats and adaptation
12 min.

🌐 English   Start →

Revisit Butterfly Anatomy (preliminary)
25 min.

🌐 English   Start →

Butterfly biology
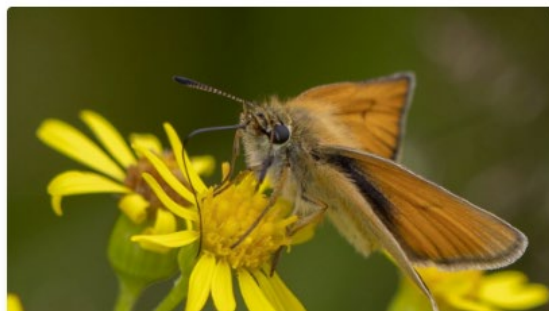
The role of Lepidoptera in ecosystems
12 min.

🌐 English   Start →
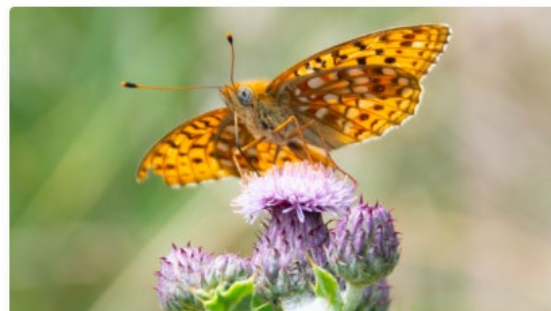
The life of Butterflies: seasons, survival and signals
15 min.

🌐 English   Start →

Methodology and Conservation

Counting butterflies: The Transect Method
8 min.

🌐 English   Start →

The importance of butterflies: value and threats
5 min.

🌐 English   Start →

Example: Green, grassy places

Grasslands are extremely important for many species of butterflies. It provide plants that produce lots of **nectar** (butterflies' food) and plants on which their caterpillars can feed. Grasslands with a variety of plants tend to support a diverse butterfly population.

Disconnect ⊗

| CHALK GRASSLANDS | WET GRASSLANDS | ALPINE MEADOWS | LOWLAND HEATHLANDS |

These are special places with thin, chalky soil that lacks nutrients. Many unique plants grow here, which in turn attract unique butterflies. Animals such as sheep and rabbits help to keep these areas open and ideal for butterflies by grazing.

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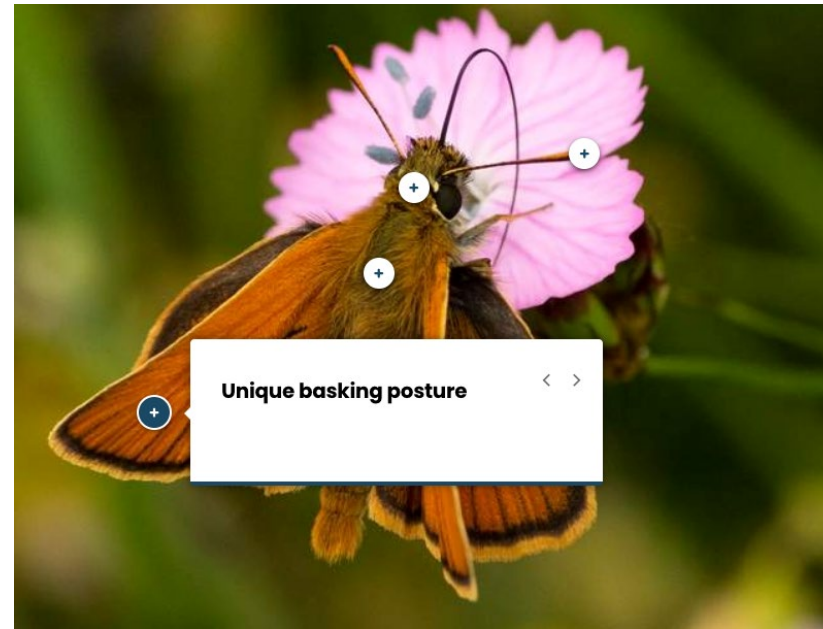
Unique basking posture ‹ ›

+

Check your knowledge:

Disconnect ⊗

Well-managed urban and agricultural areas can support butterflies diversity

=

| False | True |

Genus: Argynnis —

Several species belong to this genus, all with orange wings and black dots on the upperside. The key differences are on the underside of the hindwings.

- *Argynnis paphia* (Left): The underside of the hindwing is **green with a prominent silvery-white discal stripe**. The marginal area has the same colors.
- *Argynnis pandora* (Right): The underside of the forewing has a bright **red base color** in males. The hindwing underside is green with some yellowish (males) or silver (females) stripes.

Genus: Speyeria +

Genus: Boloria +

2. Organizing the recruitment of participants

How do we recruit participants??

- **Current volunteers**

- **Network** and consortium

- Suggestions national authorities and country experts

Minimum of 10 participants covered travel and accommodation costs

(whole project)

Country (Region)	Field excursions	Online courses	Lab course	Approximate trainees in total
Lithuania	2	3		25
Latvia	2	3		25
Romania	2	2		20
Hungary	2	3		25
Slovakia / Czechia	2	3	1	28
Bulgaria	2	3		25
Greece	1	2		15
Croatia	1	2	1	15
Slovenia	2	3		20
Poland	1	2		15
Total	**17**	**26**	**2**	**208**

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2. Member state nominations

Direct nominations of people to be trainee by the different MS → Nominees should be included on the butterfly trainings

Country	Nominations sent	Number nominations
Bulgaria	yes	3
Croatia	yes	6
Greece	yes	2
Poland	yes	6
Slovakia	yes	3
Hungary	yes	8
Lithuania	yes	19
Romania	yes	15
Slovenia	yes	1
Czechia		
Latvia		
	Totals	**63**

- **Registration Form:** Microsoft Form online open to everyone

- **Acceptance of GDPR:** sharing trainees information to DG-Env

- EPIC team sent the registrations to trainers

3. Implementation of training programme

	Country	Date	Participants
2025	Hungary	12-13 April	17
	Czechia (Web)	24 April	21
	Slovenia	10 May	11
	Slovenia	9 June	11
	Czechia	24-25 May	20
	Romania	23-25 May	14
	Romania	10-12 July	14
	Bulgaria	23-24 June	6
	Lithuania	26-27 June	14
	Slovenia (Web)	21 October	
	Slovenia (Web)	18 November	
	Czechia (Lab)	30 November	10

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4. Development of certification

– For online and field/lab courses

– Assessment of Competence : develop a checklist of skills and knowledge required at various competence levels (basic, intermediate, advanced), e.g. butterfly species identification, transect walking, data reporting, and using identification keys.

4. Development of certification

In situ Fieldwork certification

FIELD OBJECTIVES: LEVEL 1 EPIC-BUTTERFLY

Determine the objectives achieved based on a range from 0 to 5, where 0 is nothing/not acquired and 5 is completely acquired the knowledge. Minimum of 9 points to accept field objectives achieved by the trainee.

LEVEL 1 (BASIC)	Be able to conduct butterfly transects	Master the input of monitoring data	Catch and release specimens for identification	Identify butterfly species in field conditions	Describe the main characteristics of each butterfly family	Identify the most common butterfly species in the region	Total points
TRAINEE 1							
TRAINEE 2							
TRAINEE 3							
TRAINEE 4							
TRAINEE 5							
TRAINEE 6							

What is the family of this butterfly? Please select one of the following options.

Version 2 (latest)

Question **1**

Not yet answered

Marked out of 1.00

What is the family of this butterfly? Please select one of the following options.

Select one:

- a. Riodinidae
- b. Nymphalidae
- c. Pieridae
- d. Lycaenidae
- e. I do not know
- f. Papilionidae
- g. Hesperiidae

5. Next steps (Content)

Level 2 Intermediate

Pollinator Academy
Spotting the difference: intermediate butterfly species (Level 2)
📄 Microlearning
Updated at Nov 19, 2025

Pollinator Academy
All butterfly genera in Europe (Level 2)
📄 Microlearning
Updated at Oct 24, 2025

Level 3 Advanced Masterclasses

The genus Erebia
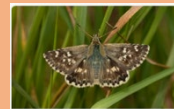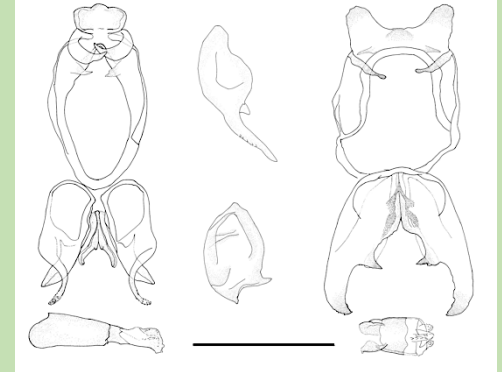
The genus Pyrgus

(Extension)
Level 3 Advanced material

Level 4
Laboratory course: extraction of genitalia

5. Next steps (Training programme)

Slovenia (Webinar)   20 January

Greece   19-22 June

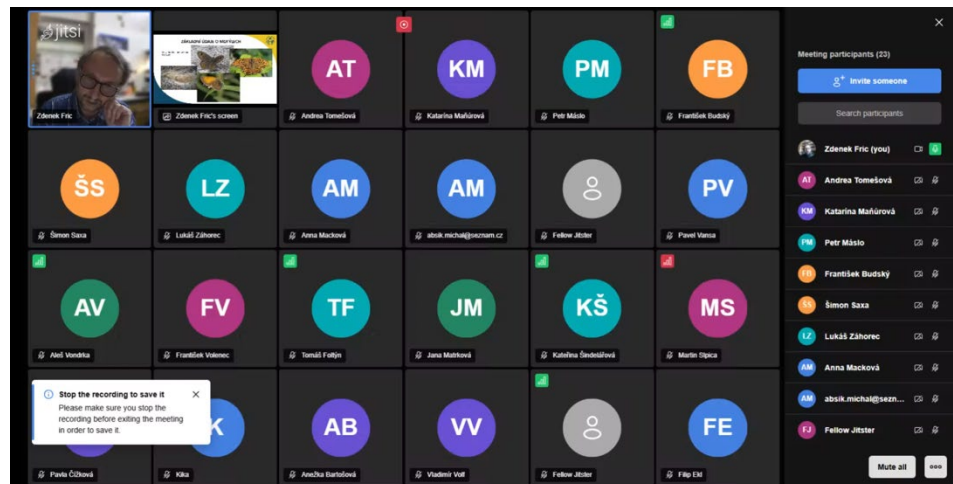Lithuania   Late June

Poland

Croatia

Latvia

Level 2

Czechia webinar

Lithuania/Hungary field courses