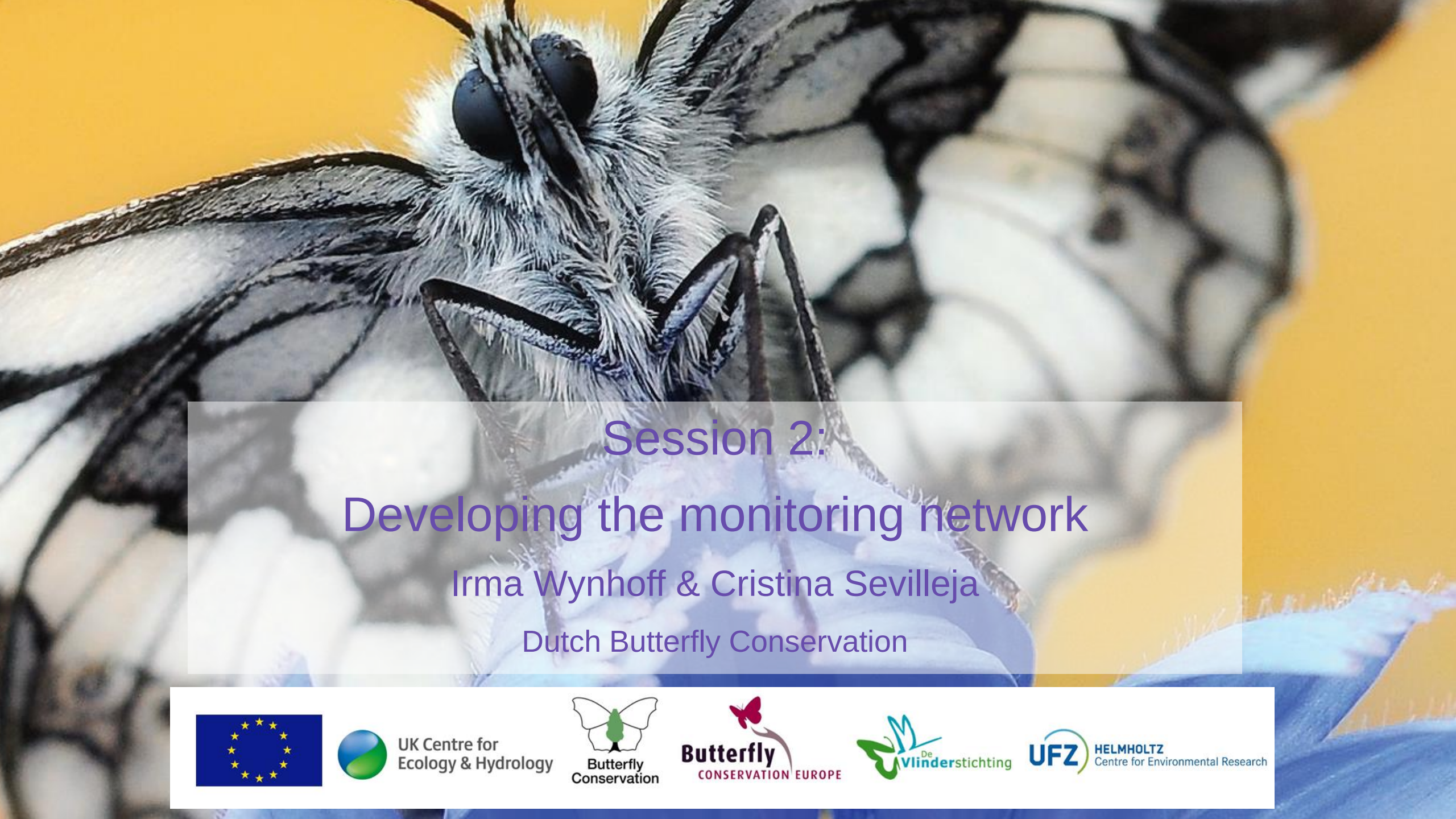


Session 2:

Developing the monitoring network

Irma Wynhoff & Cristina Sevilleja

Dutch Butterfly Conservation

UK Centre for Ecology & Hydrology

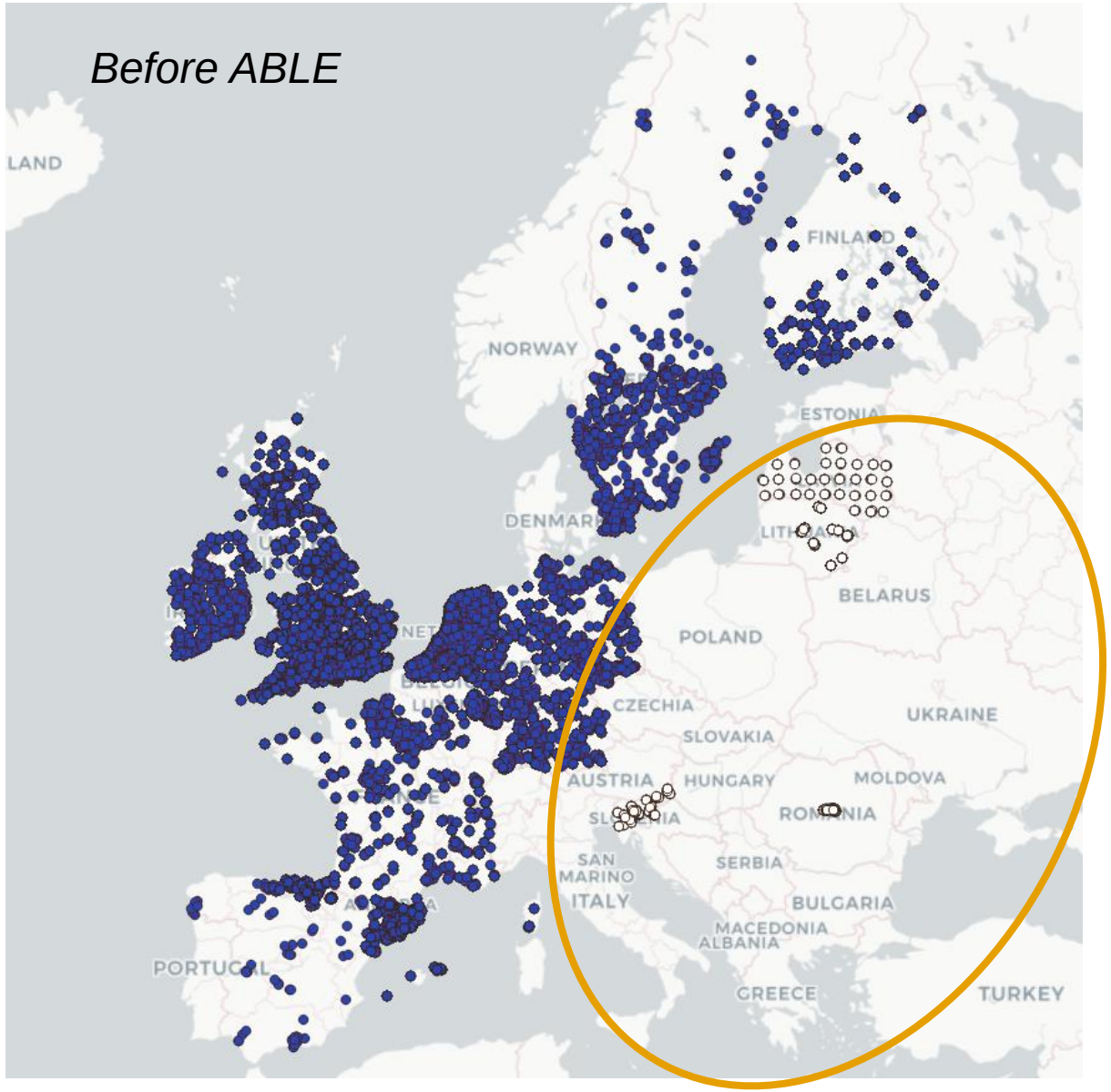
Butterfly Conservation

Butterfly Conservation Europe

De Vlinderstichting

UFZ Helmholtz Centre for Environmental Research

Butterfly Monitoring Scheme: BMS



ABLE Project: Assessing ButterfLies in Europe

Create a representative monitoring network of Butterflies throughout Europe.

- The ABLE project is a partnership:
  - Butterfly Conservation Europe (BCE)
  - Centre for Ecology and Hydrology (UK)
  - Helmholtz Centre for Environmental Research (UFZ, Germany)
  - Dutch Butterfly Conservation (Vlinderstichting)
  - Butterfly Conservation (UK)
- European Pilot-Project: 2019 – 2020
- Task 2: Develop a monitoring network in Europe

How to start a BMS?

How to get people interested in monitoring butterflies?

- Find proper support → Stakeholders

Volunteers, nature parks, wardens, professionals, amateurs, lepidopterists

- Clear message: fun + nature conservation
- Set up communication: email, platform
- National/regional Coordination: different roles

How to start a BMS?

How to run the BMS?

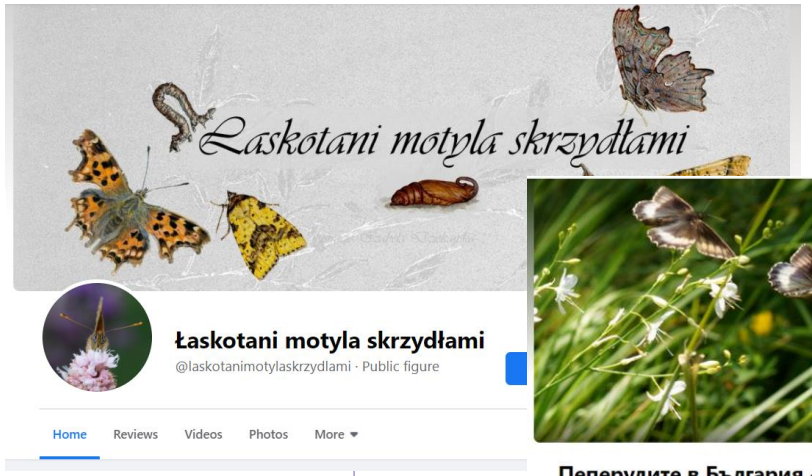
- Resources for coordinators and BMS:

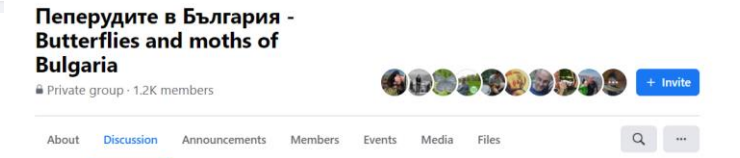
Workshops, travel expenses, translations

- Dissemination: Newsletters, websites, social media

- Supporting materials: field guide and data management

- Training volunteers: workshops and training sessions, online support, feedback





Lessons learnt from ABLE

- Knowledge other BMS + cultural differences
- Listen coordinators + identify the starting point set-up their scheme in the way they want it
- Involve everyone: from scientists to amateurs
- Every step counts

Capacity Building

Achieved objectives

Sharing data to eBMS:

1. Slovenia
2. Latvia
3. Romania
4. Lithuania
5. Czech Republic
6. Austria
7. Norway
8. Switzerland

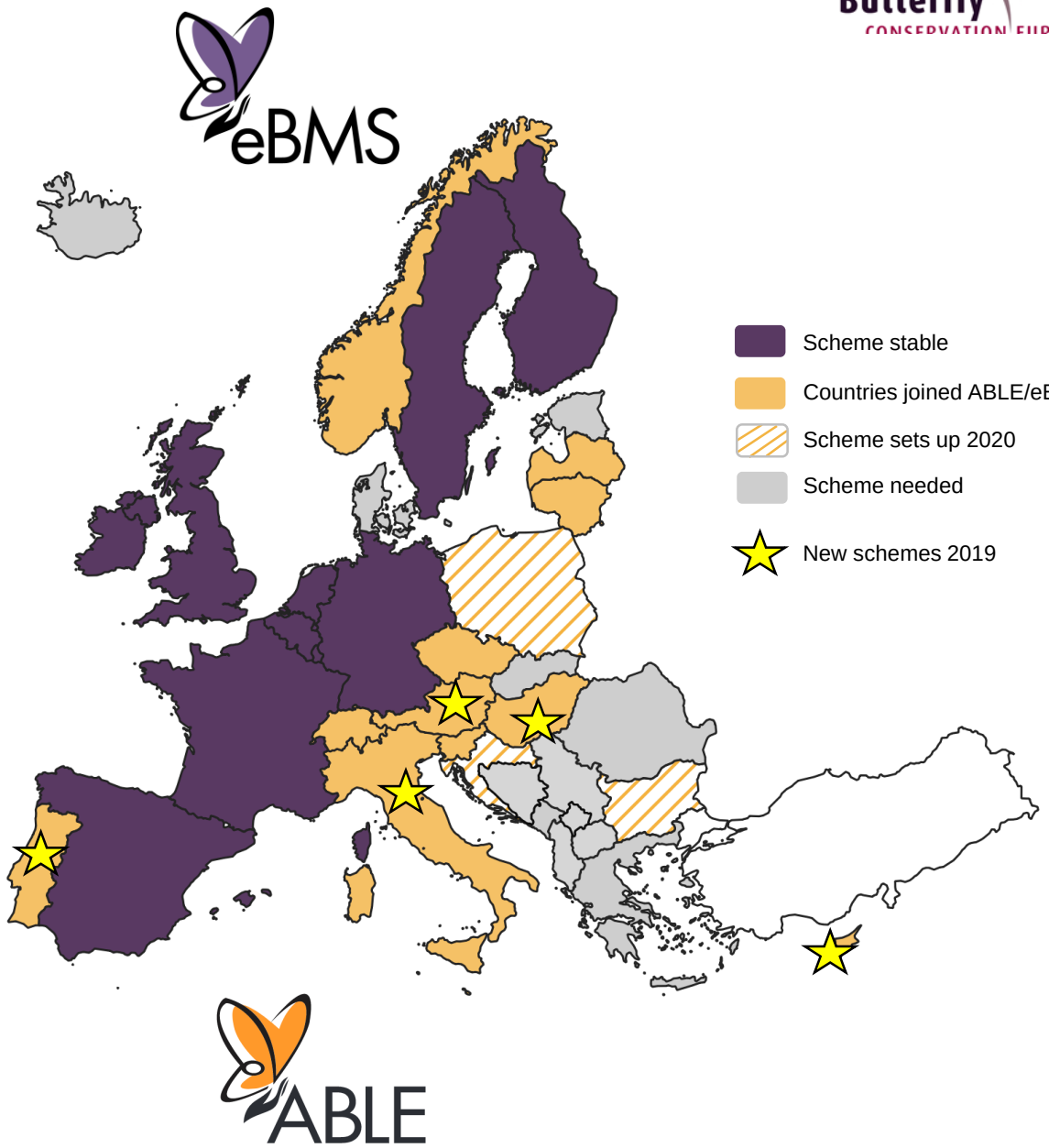
New BMSs created:

2019

1. Italy
2. Portugal
3. Hungary
4. Cyprus
5. Austria

2020

6. Croatia
7. Malta
8. Bulgaria
9. Poland



Workshops

- ITALY

2019, Italian Butterfly Group, collaboration National/Natural Parks, regional coordination (N,S & C). More than 30 transects in ONE year

7 regional workshops in 2019/20:

- North, Center and South

ALI Associazione Lepidotterologica Italiana

Workshops

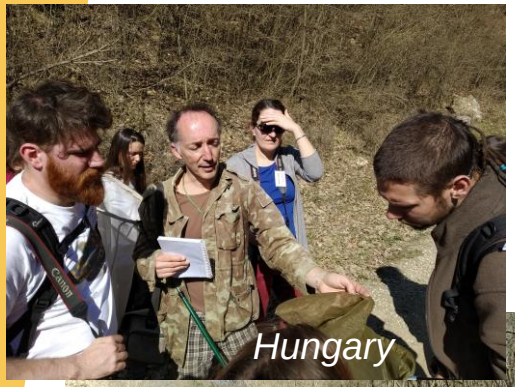
- PORTUGAL

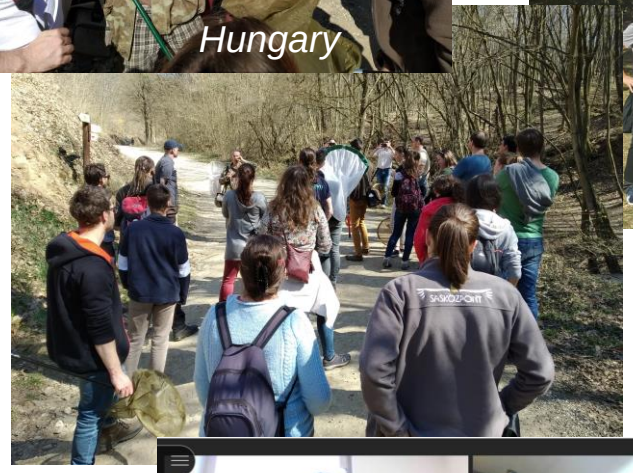
-2019, BioStations, Key stakeholders (SPEA, Ciencia Viva), National workshop, working with National Park guards. More than 20 transects in ONE year

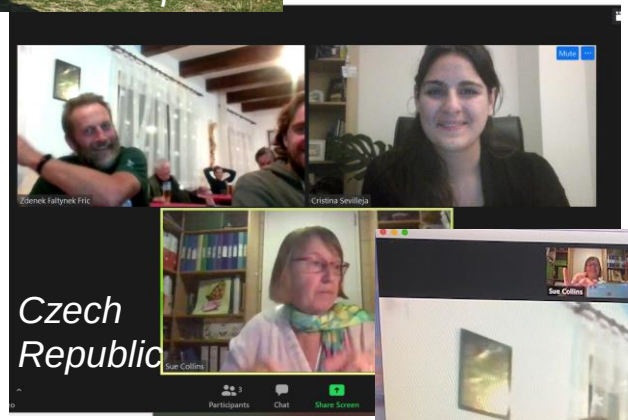
tagis
Centro de Conservação das Borboletas de Portugal

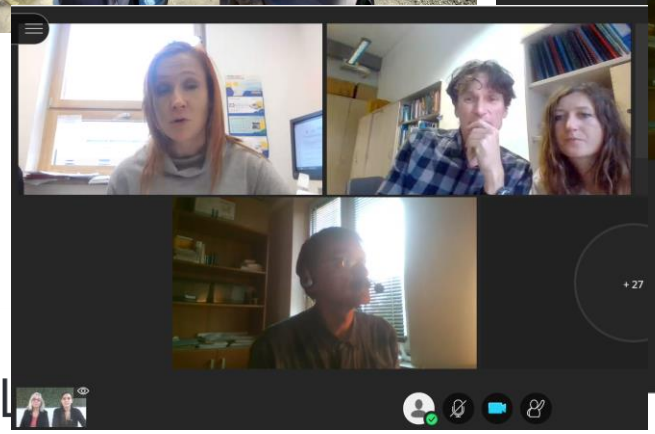
eBMS ABLE

Workshops







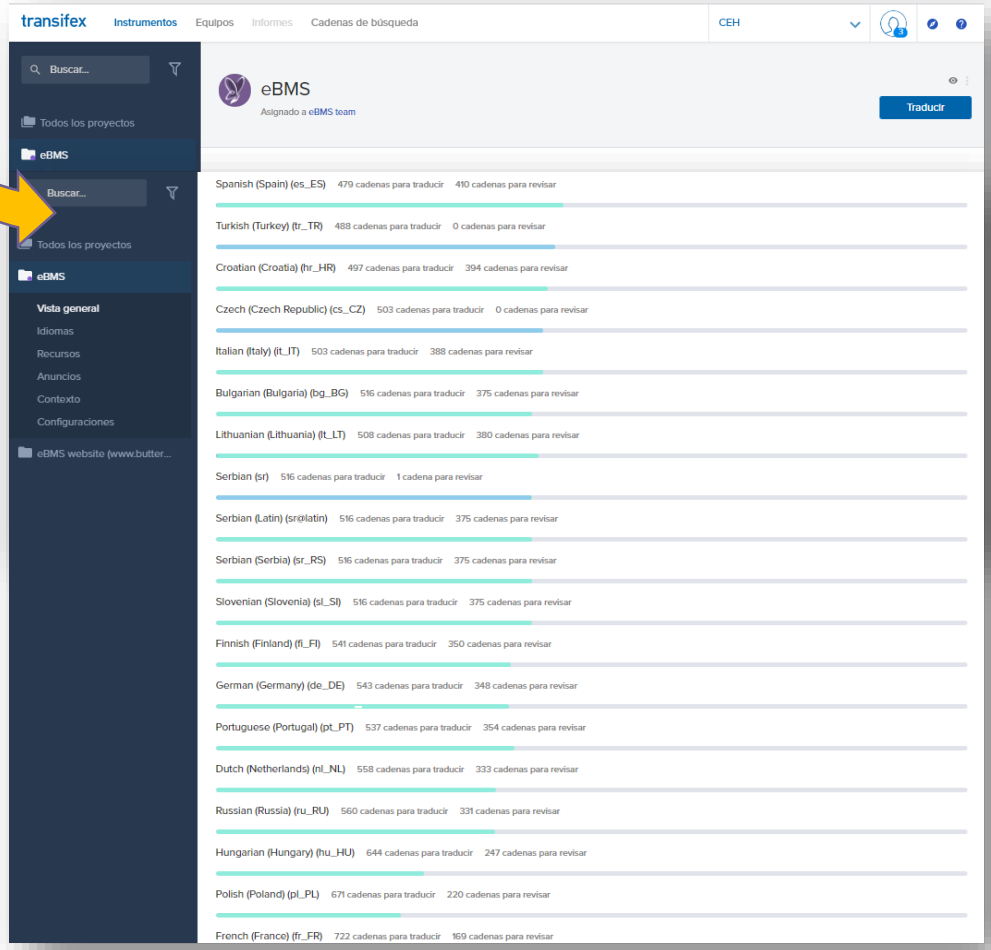


Malta Workshop soon

Support

- Materials: Field Guides, butterfly nets, booklets,
- Translations: ~ 14 languages website

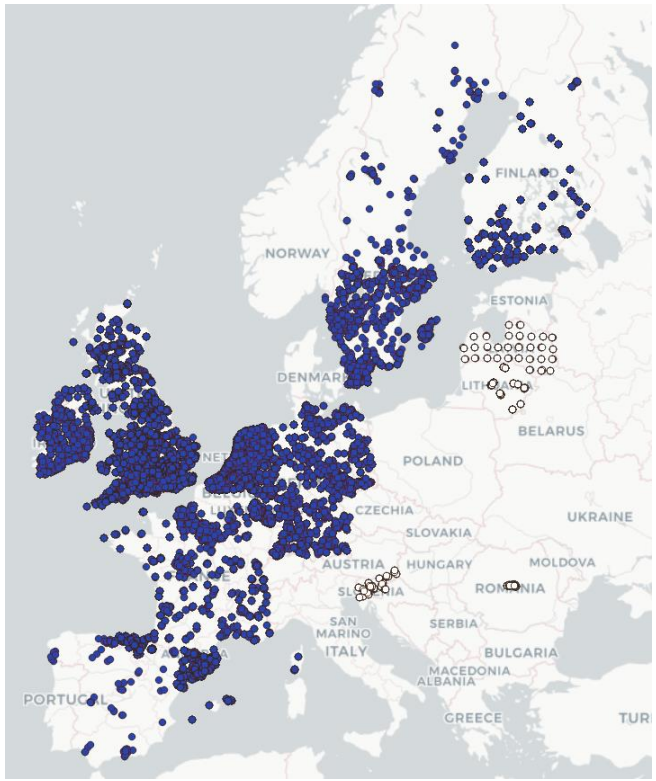
  ~ 19 languages app



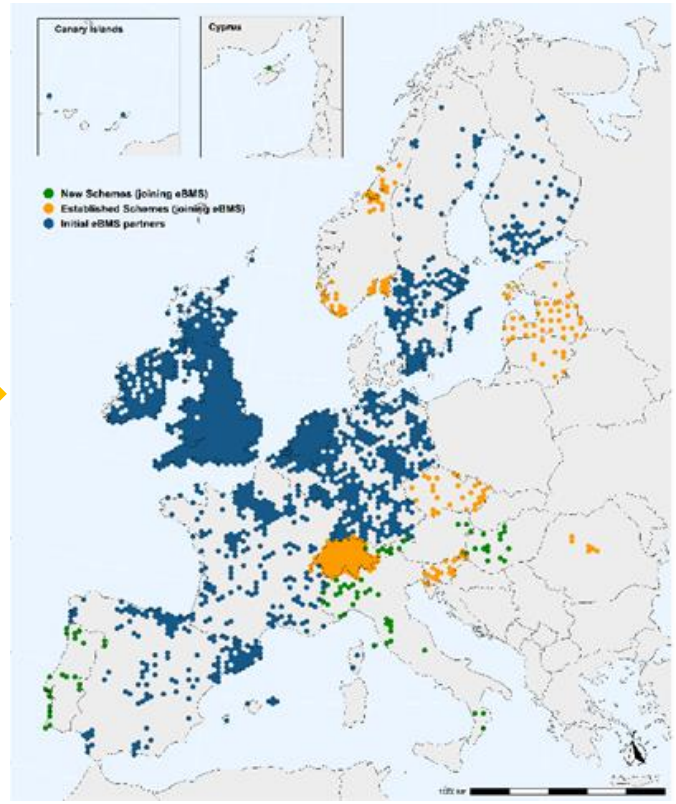
Cyprus, Slovenia, Poland, Madeira, Bulgaria & Croatia

Count butterflies everywhere!

Butterfly CONSERVATION EUROPE

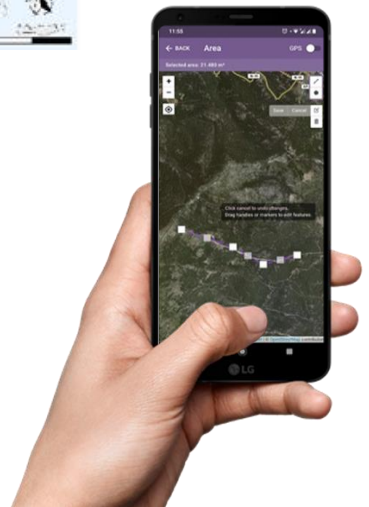


2 years



- Transects + 15-min counts

Butterfly Count App



eBMS ABLE

Coordinators
Assistants
Rangers
Volunteers
Institutions
…

Sue Collins
Irma Wynhoff
David Roy
Chris van Swaay
Emily Dennis
Reto Schmucki
Martin Warren
Nigel Bourn

Interactive discussion

Many countries, many customs:

issues, experiences and solutions

- *Italy*
- *Austria*
- *Spain*
- *Bulgaria*
- *Hungary*

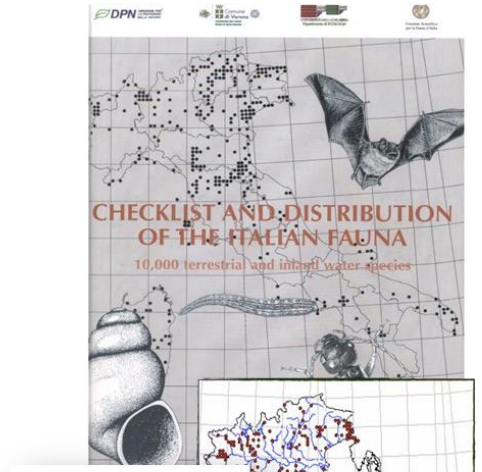
Italian BMS

Simona Bonelli

Butterfly Monitoring Scheme Italy
Species identification

The problem of identifying a huge biodiversity

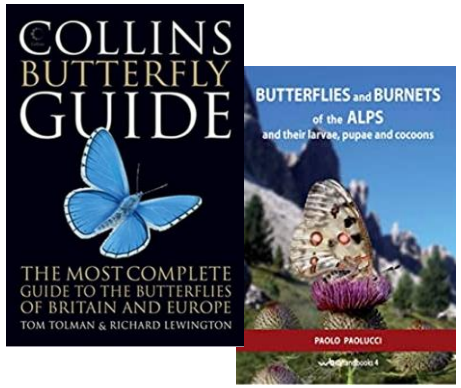
- Almost 300 butterfly species
- Huge diversity of habitats/3 biogeographical regions
- 17 Habitats Directive species (60% of the UE)
- In some habitat 40 species can occur in the same transect at the same time
- Many cryptic species
- Scarce interest in butterfly conservation among people and politicians
- Few local group of butterfly amateurs
- Scarce use of open source data bank



Simona Bonelli

Butterfly Monitoring Scheme Italy
Species identification some solutions:

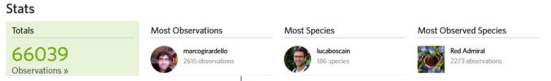
PAST (ante ABLE)

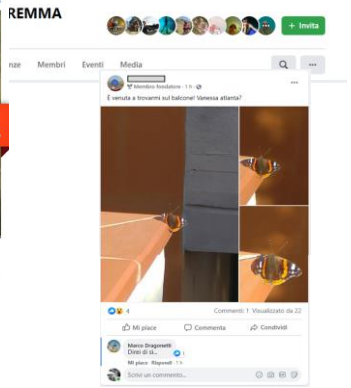


PRESENT (ABLE Era)

Stefano (in red) talking in the Sila workshop

Simona and Leonardo discussing in a workshop





- It-BMS starts in 2019
- 1 main coordinator with 2 co-coordinators (Leonardo Dapporto and Stefano Scalercio)
- 5 ABLE regional field guide
- 7 workshops to train the use of guides
- 1 iNaturalist dedicated project to validate identifications
- 3 regional Facebook groups of experienced volunteers who help the less experienced in identifying

NEAR FUTURE (After ABLE)

Austrian BMS

Daniela Lehner

Austria - Issue

- Vague ideas about coordinator roles
- No organizational backing – a lot of “support”
  - Come again if you have funding…
- No connections to sustainable funding
  - Come again after you organized…
- Existing pre-justice against CS
  - data quality
  - additional workload
- Lack of awareness in key positions
- Trying to do too many things at once

eBMS 2020

ABLE Workshop September 2019

Austria - Solution

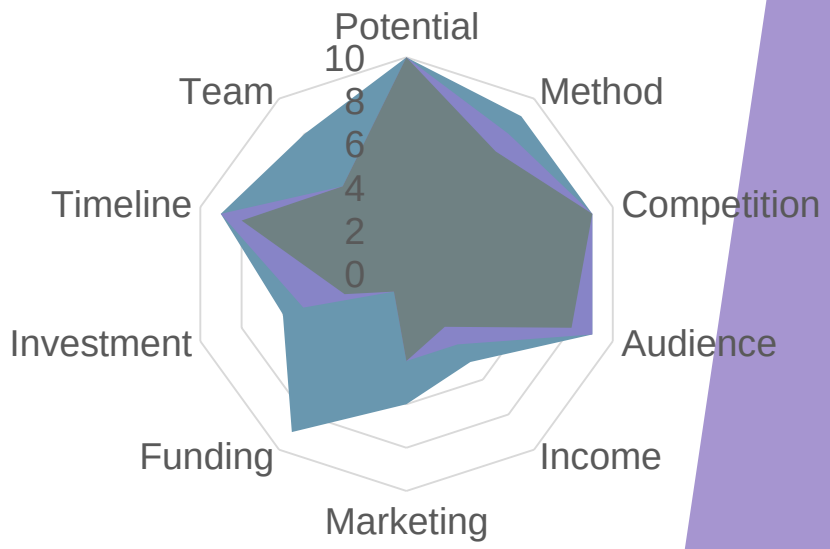
- “Do not waste your time looking for an obstacle - maybe there is none.” – Kafka, diary, 1920
- Application to Innovate 4 Nature Mai 2020
- Finalist workshops – 2 days a month with consultants

Matchmaking

Austrian Butterfly Conservation

September 2020

- Structuring of solutions
- Outsider perspective
- Support by peers
- Finding the right arguments for the right people (pitch)



June -> October

Next:

“Brand design” &

First official association meeting

Spanish BMS

Miguel L. Munguira

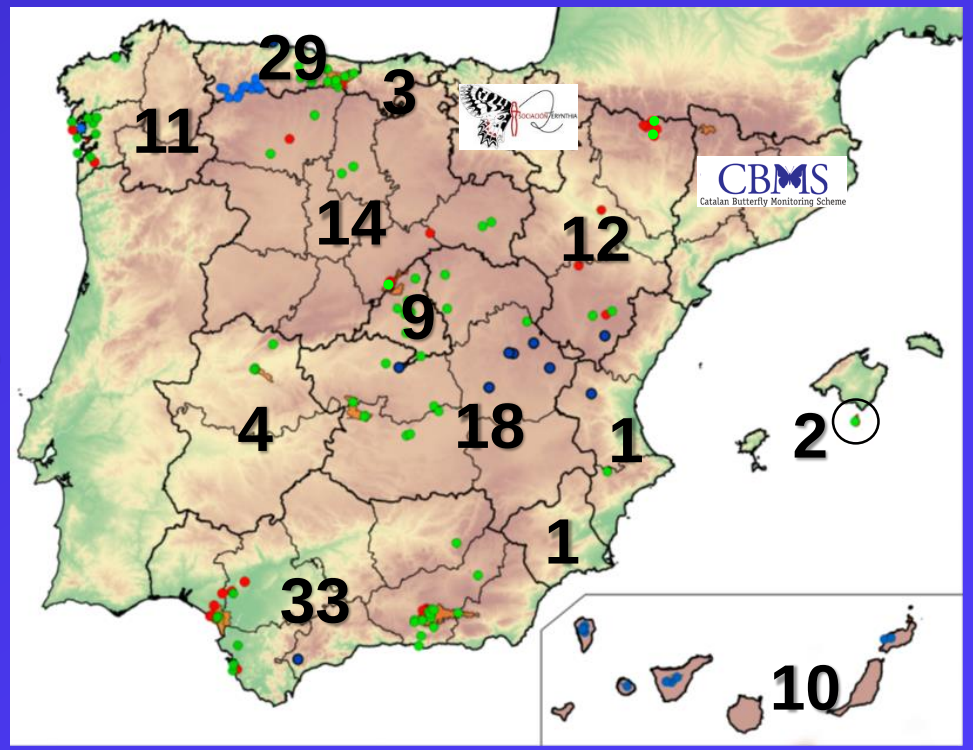
UAM
UNIVERSIDAD AUTONOMA
DE MADRID

BMS ESPAÑA (SPANISH BMS)

Miguel L. Munguira

ISSUE: TRANSFERING DATA FROM OUR OWN PLATFORM (IN DOÑANA) TO eBMS PLATFORM

- Transfer was planned for the end of 2019
- We had 164 transects in 2019. Some of them had old data (red and Green), but others were added this year (blue)
- Tracks and abundance data were stored in our own system in Doñana Research Station (EBD)
- The Spanish BMS system had been in use since 2015



Universidad Autónoma de Madrid

CIBC UAM
Centro de Investigación en Biodiversidad y Cambio Global (CIBC-UAM)

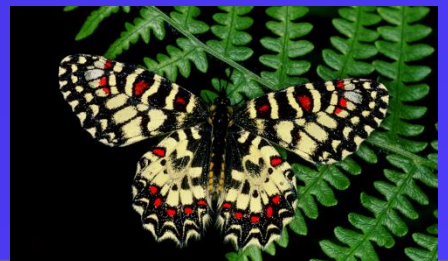
BMS ESPAÑA (SPANISH BMS)

ISSUE: TRANSFERING DATA FROM OUR OWN PLATFORM IN DOÑANA TO eBMS PLATFORM

SOLUTION: We performed the transfer in two phases.

- **First** we recovered tracks for the 164 transects from our system. They were loaded in eBMS. This allowed the use of the system for all new data, starting in the year 2020, but also made phase 2 possible
- **Second** we exported old data (mainly 2015-2019) to the eBMS system. Peculiar data (sex of specimens, observations) was not loaded in eBMS, but the core of records was transferred successfully

Once this was done recorders had to register in the new platform.
Some of them reacted quickly, but in other cases it took some time…



Bulgaria BMS

Zdravko Kolev

NATIONAL MUSEUM OF NATURAL HISTORY
BULGARIAN ACADEMY OF SCIENCES

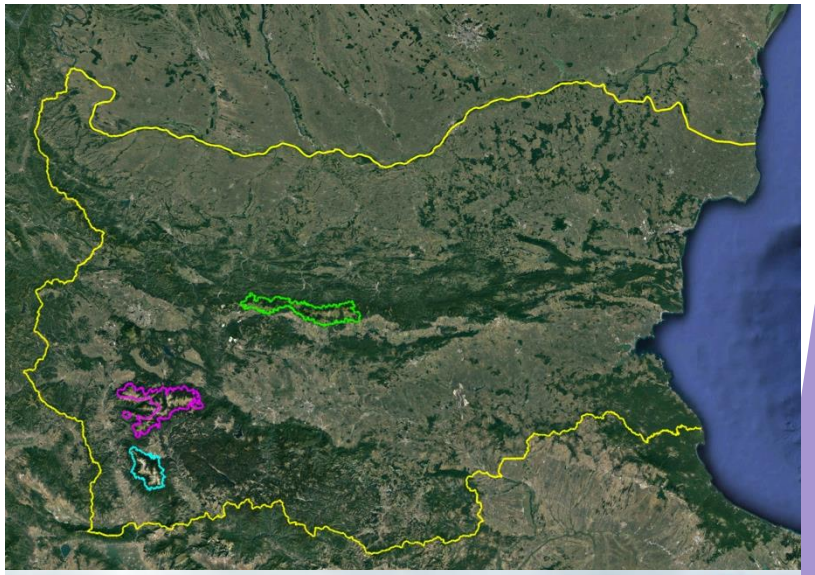
Bulgaria and its National Parks

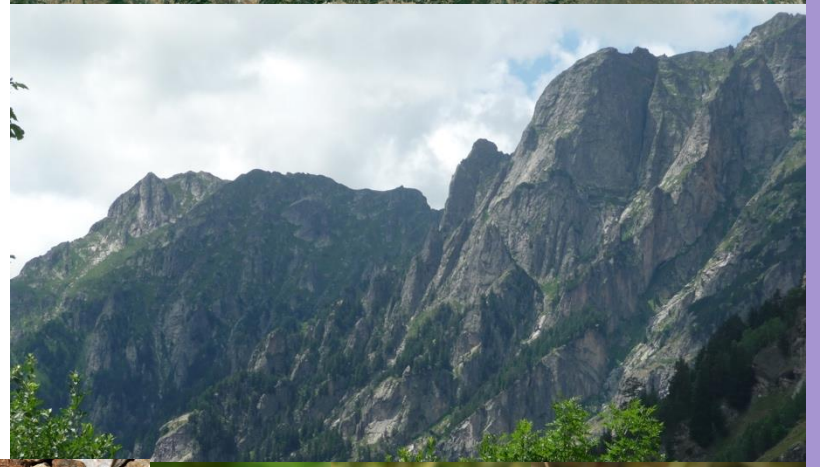
Bulgaria: One of the most backward EU member states. Lags behind most other European nations in many important areas, incl. citizen science and grassroots nature monitoring.

Three National Parks, encompassing the highest mountains: Central Balkan (green), Rila (purple) & Pirin (blue).

NP's have expert staff and field personnel (rangers), and monitoring biodiversity is one of their legislative obligations. However, in practice, at most some charismatic mammals (chamois, bear), larger birds or endemic plants are monitored.

Currently, **there is no expert capacity for butterfly monitoring** on the territory of Bulgarian NP's. Yet these areas host a total of nearly 200 butterfly species out of almost 220 nation-wide, including HD species, endemics, and rare or declining taxa.





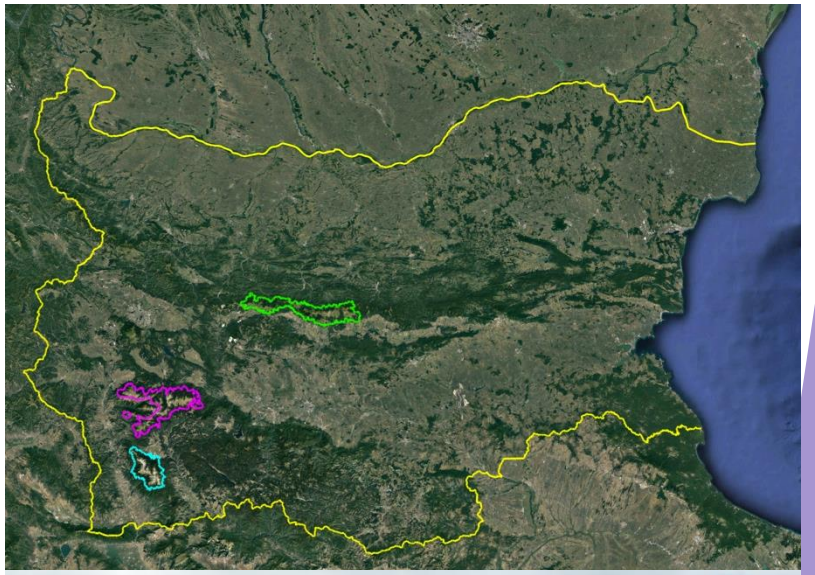
ABLE and Bulgarian National Parks

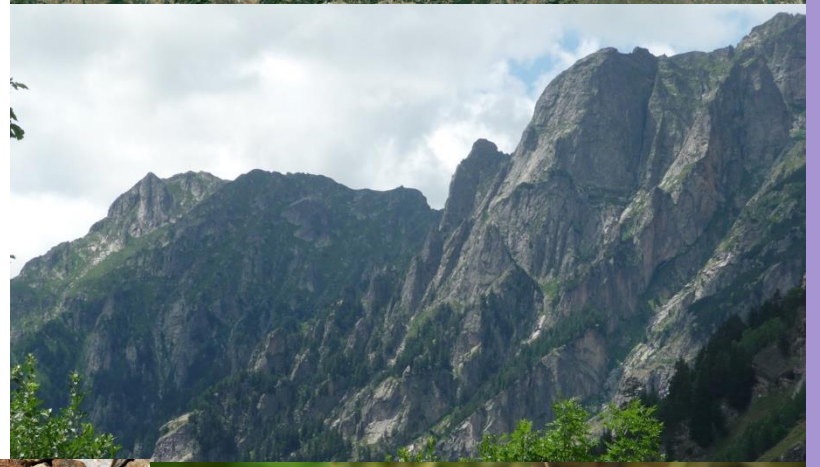
The greatest progress in advancing ABLE's objectives in Bulgaria: citizen scientists (volunteer butterfly recorders). This is where capacity-building has advanced the most.
National parks have been identified as a foremost stakeholder in advancing the national BMS (rangers, rich and well-preserved nature, monitoring is a part of the NP duties).

ABLE actions:

In 2020, I

- contacted the top management and experts of all three NP's,
- arranged meetings where possible (Pirin, Central Balkan) to present the ABLE and eBMS projects & the Bulgarian BMS,
- seeking to identify possible areas for cooperation with the NP's, interested personnel, training needs, possible location of suitable transect areas, etc.





ABLE and Bulgarian National Parks

Results:

All three NP's have expressed interest in the ABLE objectives and in-house capacity-building for butterfly monitoring beyond 2020.

NP Pirin: the most active, expert staff have existing plots for monitoring of montane flora and strong interest in adding butterflies to the target groups. First training session for experts and rangers on butterfly monitoring was held in July 2020.

NP Central Balkan: several in-house experts interested in taking part in training, have already chosen suitable transect locations.

NP Rila: strong initial interest, but until now no follow-up steps have been made.

ABLE and Bulgarian National Parks

Next steps:

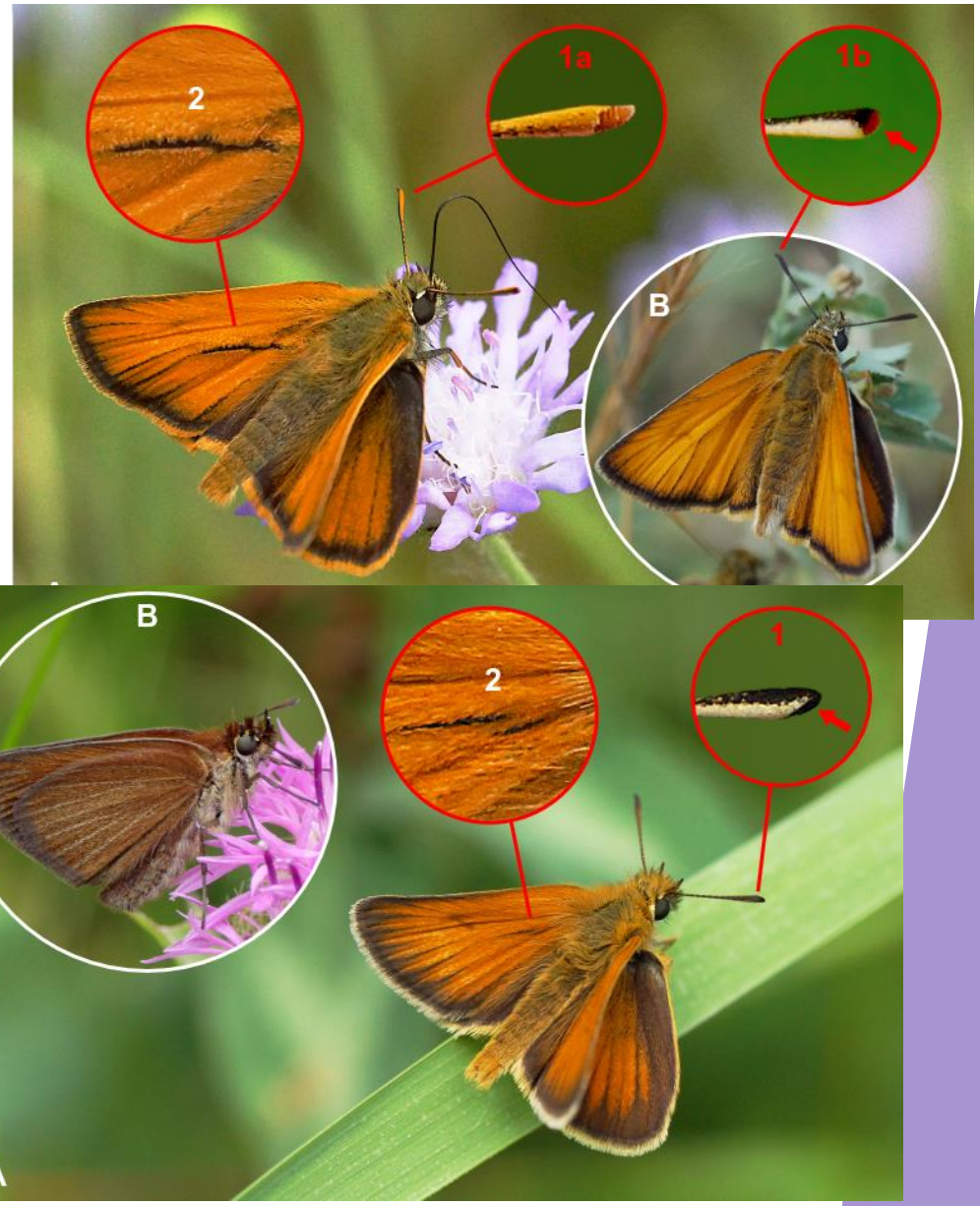
I have begun devising training materials for butterfly ID, as existing material does not appear suitable

A list of 100 species to be compiled for a ABLE-style field ID brochure

Nets and other material provided to me by ABLE, to be distributed to participants

Active dialogue continues with 2 of the 3 NP's in order to arrange suitable training schedule for the 2021 field season

No. 1 challenge: How to get the rangers involved...



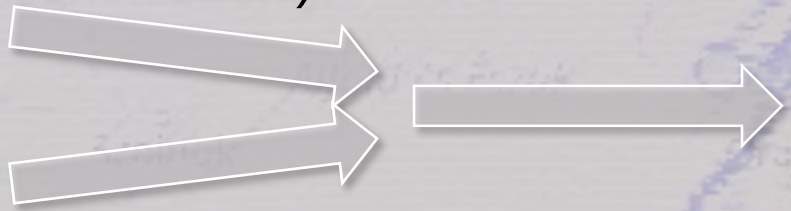
Hungarian BMS

András Szabadfalvi

Issue: ►involve more volunteers in HuBMS ►support/reform the state-funded NBMS*

» Not enough transects → the more data the more reliable;

» Slow growth of transect network (lot of commitment).



» National Biodiversity Monitoring System* = Hungary's state-funded monitoring protocol for Natura2000 butterfly/moth spp.;
» Underfinanced → not enough samplings, not enough data;

» Outdated methodology/protocol (triple catch + presence-absence surveys) →
→ reform heavily pushed by professionals in the field of conservation

**NBMS in Hungarian Nemzeti Biodiverzitás-monitorozó Rendszer (NBmR)*

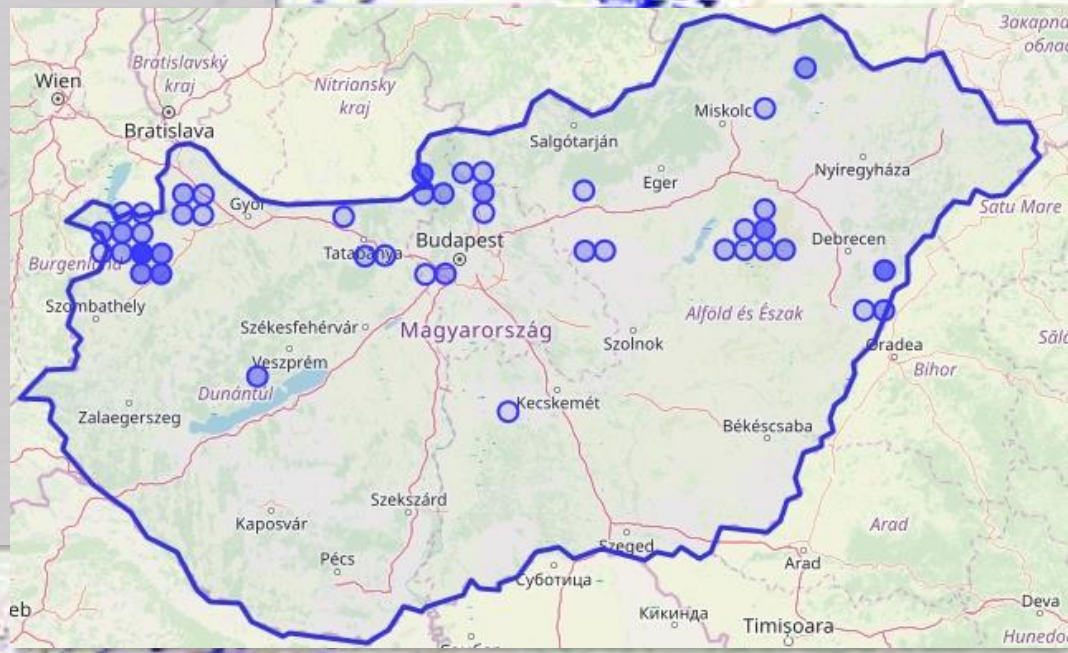
» No state-funded general biodiversity monitoring for butterflies/moths.

Answer: ►Timed Counts / eBMS mobile app

» eBMS mobile app test:
- test period: Sep 10 – Oct 26, 2019;
- hardware: 10 mobile Android devices (smartphones + tablets);
- software: various Android versions (4.x, 5.x, 6.x, 7.x, 8.x, 9.x);
- 97 sampling occasions;
- 52 butterfly spp., 1,584 specimens;
- report submitted to the Ministry/NP's.

» Localisation of eBMS mobile app (to be finished);
» Input to ABLE (experiences/bugs/ideas) for further app development;

» large scale Citizen Science events (planned for 2021) :
- Urban Green Survey 2021 (15-min counts in parks).



» 15-minute counts now part of the official state monitoring protocol ☺☺

HuBMS:
butterflytransectshu@gmail.com
www.facebook.com/lepimonitoring

obrigado
gracias
Thank you
takk
Thank you
hvala
spasiba
obrigado
Thank you
Děkuji
dank
tak
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takk
merci
grazie
dank
Благодаря ти
dank
grazie
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