

# Expanding Monitoring of Butterflies for Restoration And Conservation across Europe 2021-2026 (EMBRACE)



Chris van Swaay

De Vlinderstichting / Dutch Butterfly Conservation

Butterfly Conservation Europe (BCE)

Centre for Ecology and Hydrology (UKCEH)

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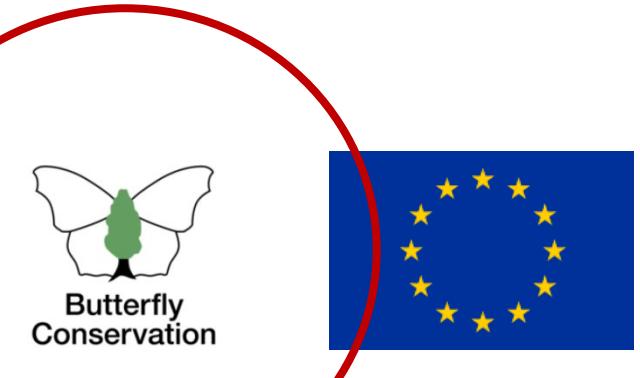
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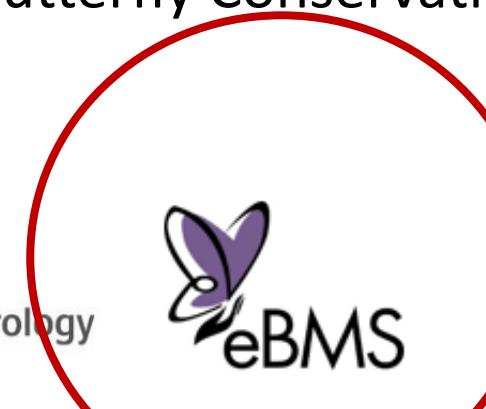
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ENTOMOLOGIST'S GAZETTE, Vol. 26

79

**A METHOD OF ASSESSING THE ABUNDANCE OF  
BUTTERFLIES IN MONKS WOOD NATIONAL NATURE  
RESERVE IN 1973**

*By E. POLLARD, D. O. ELIAS, M. J. SKELTON & J. A. THOMAS*

*Monks Wood Experimental Station,\* Abbots Ripton, Huntingdon*

There is a need for a simple reliable method of recording the abundance of butterflies in nature reserves and similar places so that changes from year to year can be assessed. The method described

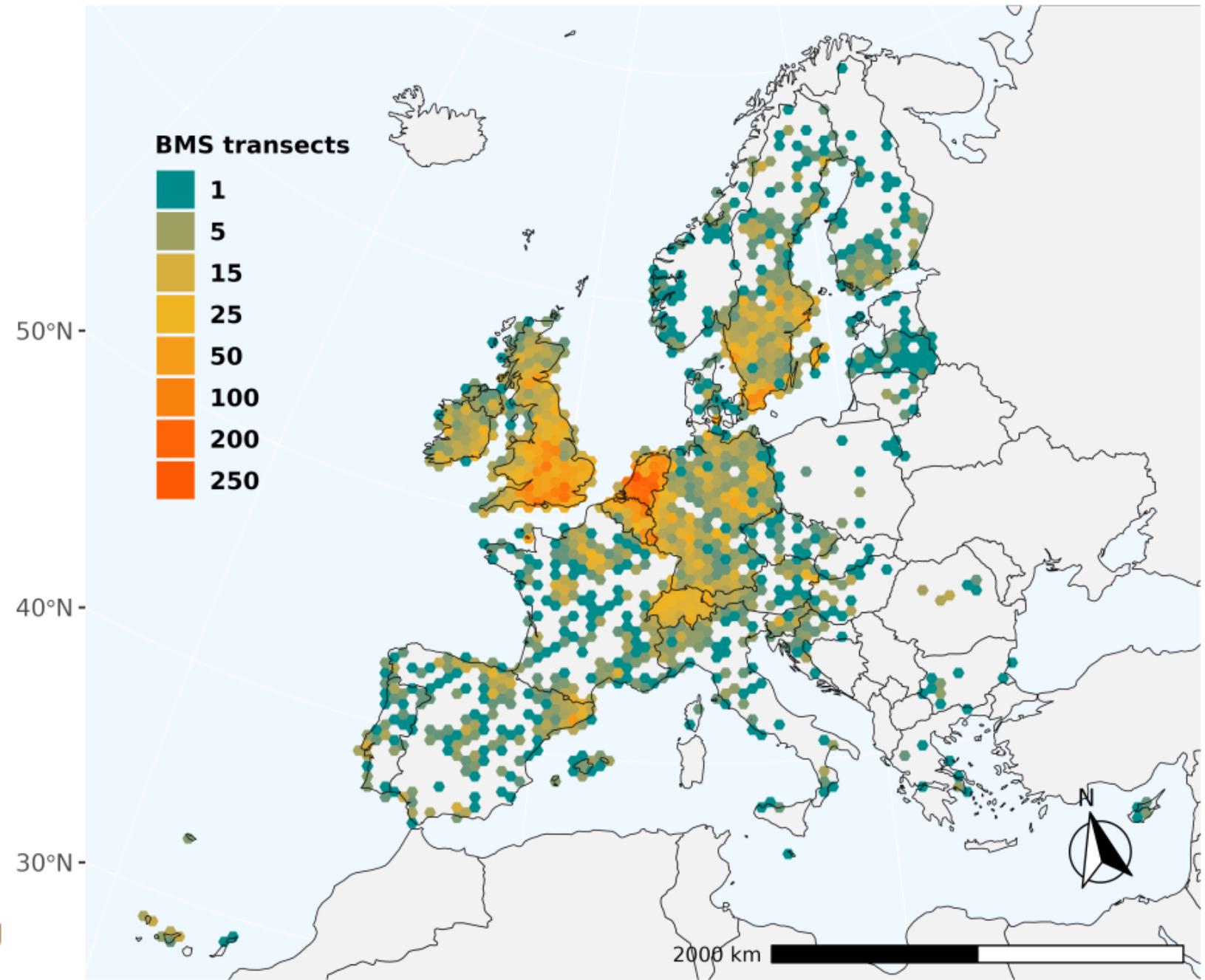
# EMBRACE: all about Butterfly Monitoring



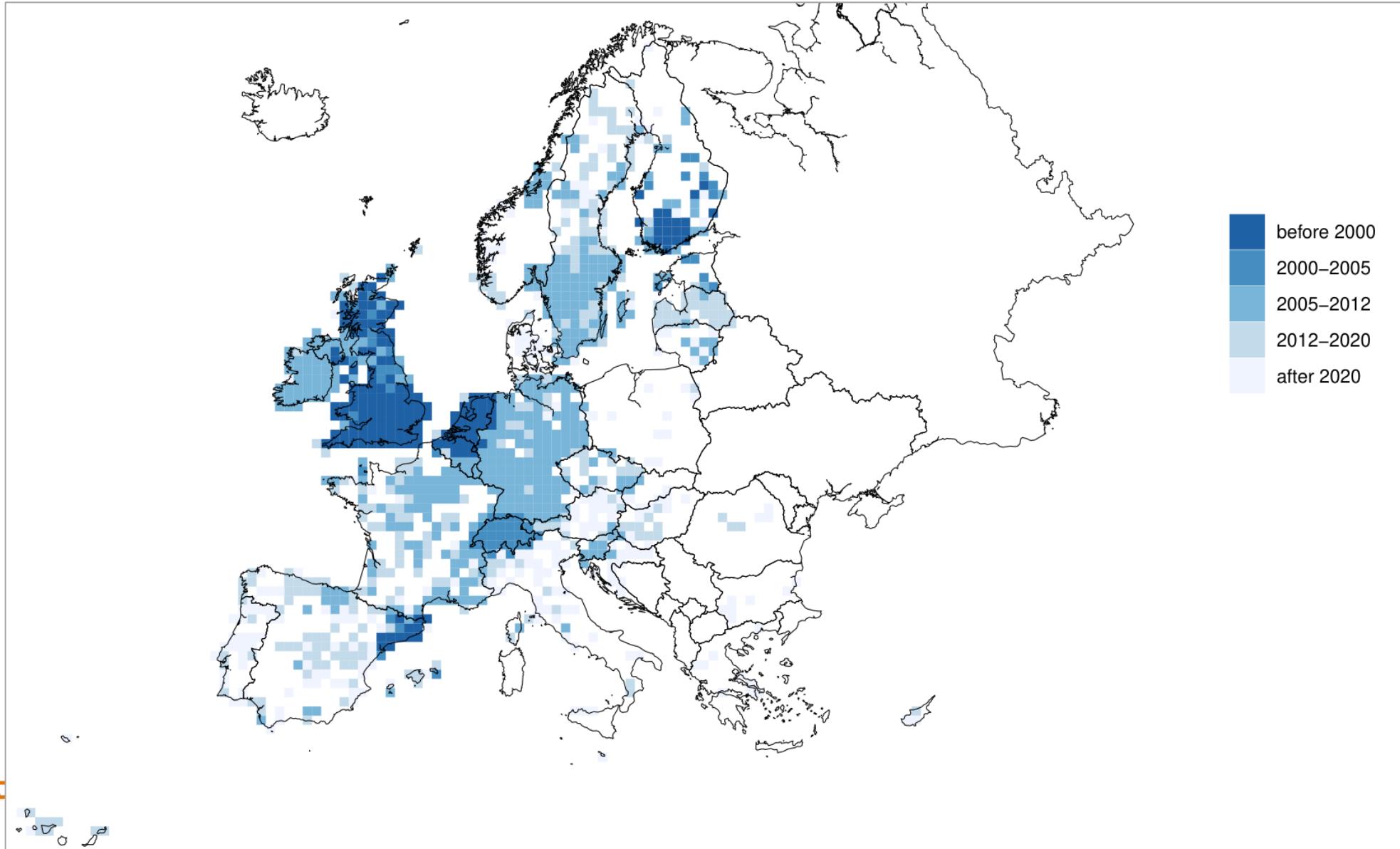
## Butterfly monitoring:

- Since 1973 (UKBMS started 1976)
- Repeated transect-counts of butterflies to species level following protocol
- Mainly by expert-volunteers (citizen science)
- Many sites, number still growing
- Scalable: local/regional/national/continental
- Golden standard: many scientific publications





# First year with butterfly monitoring



# National Butterfly Monitoring co-ordinators



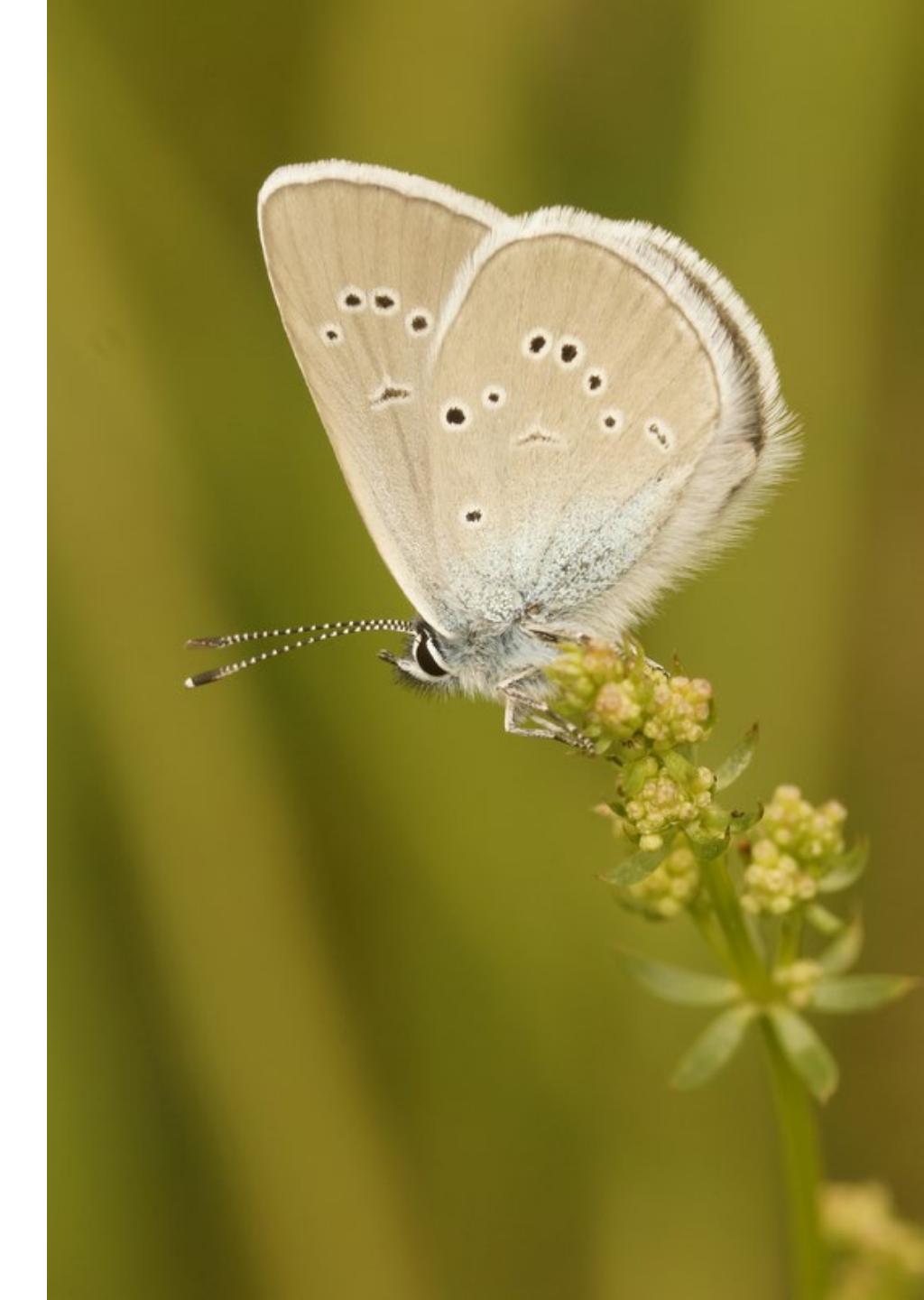
- Collect the counts
- Validate the counts
- Can calculate national trends and indicators
- Lead data to eBMS: central database



# EMBRACE Tasks

Task 1: Calculation of the GBI in the EU for 1991-2023/2024/2025, based on data existing at national level

Task 2: Continuation of eBMS with butterfly field data collection in 2025 and 2026 to underpin the calculation of the GBI for 2025 and in the future, the GBI for 2026

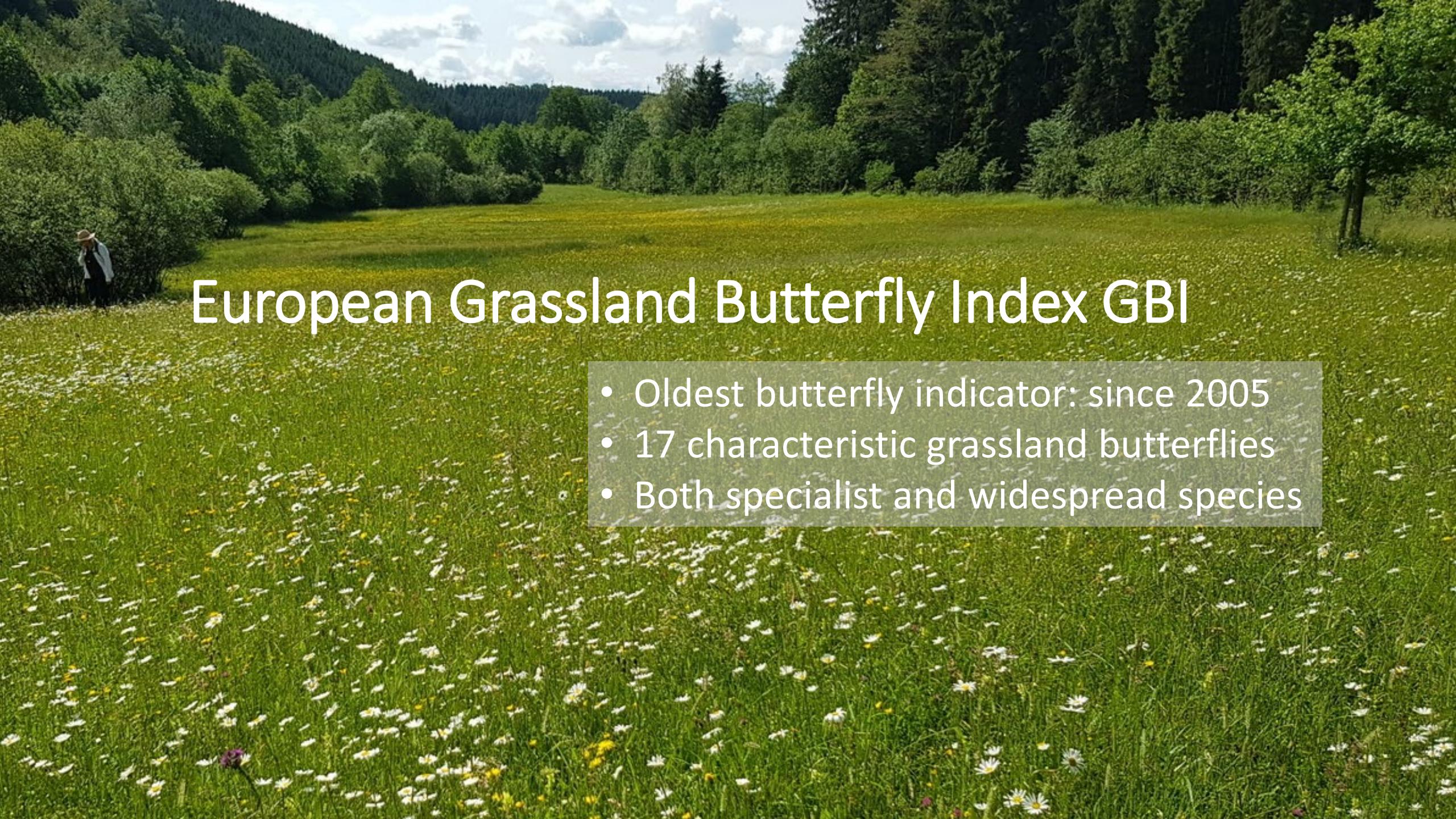


# EMBRACE



- Grassland Butterfly Index (GBI) on European/EU level
- Support BMS co-ordinators (we had a workshop on 2 April)
- Extend eBMS network
- Capacity building





# European Grassland Butterfly Index GBI

- Oldest butterfly indicator: since 2005
- 17 characteristic grassland butterflies
- Both specialist and widespread species

# Pollinator monitoring and the GBI

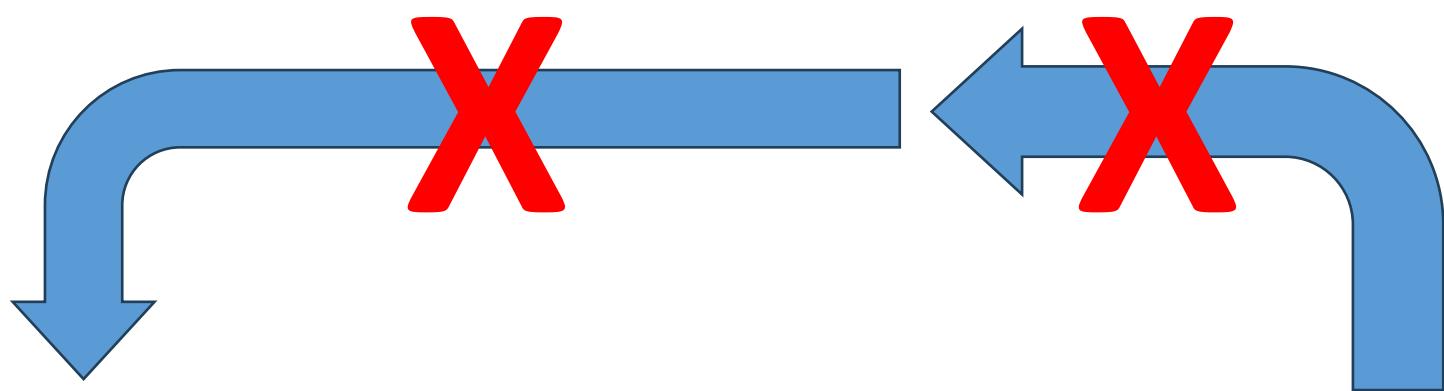


- Article 10 NRR: Restoration of pollinator populations
- Member States shall, ..., **improve pollinator diversity** and **reverse the decline of pollinator populations** at the latest by 2030 and thereafter **achieve an increasing trend of pollinator populations**, measured at least every six years from 2030, ...
- Pollinators: butterflies, moths, bees, hoverflies
- So MS have to take measures for butterflies and moths

# Pollinator monitoring and the GBI

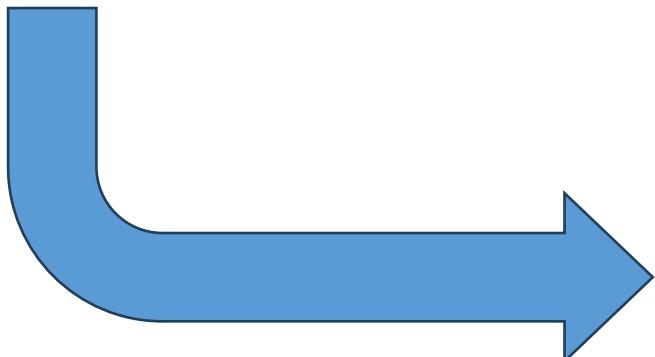


- So MS have to take measures for butterflies and moths
- They have to present them in a Nature Restoration Plan (Sep 2026)
- Butterflies and moths will profit → GBI will profit
- Pollinators have to be monitored
- Butterflies, bees and hoverflies via same (!) transects
- Moths via two traps on the transects
- All on same sites chosen by random stratified sampling



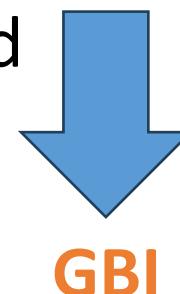
## Pollinator monitoring

- Random stratified locations
- Once a month
- Trends mainly for widespread species



## eBMS Butterfly Monitoring

- Location choice free
- Usually better butterfly sites
- Weekly/two weekly
- Trends for all species, including rare, threatened, HD, Red List
- Pollinator monitoring transects can be integrated



GBI



# Why your MS should choose the GBI?



- Article 11 of the NRR
- “Member States shall put in place measures which shall aim to achieve an increasing trend at national level of **at least two out of the three** following indicators for agricultural ecosystems ...”:
  - grassland butterfly index (GBI)
  - stock of organic carbon in cropland mineral soils
  - share of agricultural land with high-diversity landscape features

# Why your MS should choose the GBI?



- Measures for Pollinator recovery will also work for the GBI
- Pollinators = butterflies, moths, bees and hoverflies
- “Member States shall promote citizen science in the collection of monitoring data where suitable and provide adequate resources for the performance of those tasks” (NRR)
- Choosing the GBI as indicator is cost-effective (**measures** for art. 10 will partly overlap and **monitoring** can profit)

# What can you do?



- Contact your MS
- Show them what is possible and how you can help
- Offer to help in Nature Restoration Plan
- Review the Nature Restoration Plan
- Communicate to recorders how important their counts are
- Learn how to produce trends and the national GBI

# EMBRACE - timeline



- ⌚ • Support national BMS's
- ✓ • April 2025: Workshop for BMS co-ordinators
- ✓ • May 2025: GBI for EU/Europe up to 2023
- ⌚ • Capacity building
- ⌚ • Support in building national GBI's
- • December 2025: GBI for EU/Europe up to 2024
- • December 2026: GBI for EU/Europe up to 2025



[www.vlinderstichting.nl](http://www.vlinderstichting.nl)

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