

# BUTTERFLY COUNT APP

#### A FLEXIBLE METHOD

The eBMS monitoring methodology uses the **transect** as its core method for providing butterfly trends. Gaps in butterfly distribution and for rare species were collected in a less rigid method: the **15-min Count** was developed in 2019 and released for use in 2020 under the EU ABLE project. This method allows for more flexibility in recording butterflies and other insects in any location using a smartphone.

"15-min Count to easily record butterflies in any location with a smartphone"



# BUTTERFLYCOUNT FEATURES

- Free app for Android and iOS
- ➤ In 25 languages
- Use common and scientific names
- Species location recording using GPS
- Offline use
- Included 53 countries & regions in Europe and beyond (only for butterflies)
- Contains a species photograph guide and descriptions

Developing a Mobile Phone app

The **ButterflyCount app** started thanks to this new method, 15-min Count, and since then new features and improvements have been incorporated. Observers can record the number of butterflies per species on their mobile phones **directly in the field during 15 minutes**, then check the data and upload it directly to the eBMS database. This app is connected to the <u>eBMS</u> <u>website</u> and provides several methodologies:

- Transects (registered on eBMS)
- \* 15-min counts (for all species seen)
- \* 15-min single species counts (only one species, useful for threatened and vulnerable species)
- Moth traps (record moth species and abundances)



## Ongoing development

- In 2020–23, as part of the EU funded SPRING project, the App was expanded to include monitoring for moths, bumblebees and dragonflies.
- In 2023, UKCEH has expanded the App to include the butterfly list of Japan, Botswana, Kenya and South Africa, with New Zealand and Nigeria to be added soon.



• The App can now be used to photograph moths attracted overnight into moth traps and identify the species automatically using AI. This will be extended by adding more photos to the Image Recognition reference database.

#### INFORMATIVE MATERIAL

eBMS prepared several materials to disseminate, explain and make awareness of the ButterflyCount app to help our butterfly volunteers counting butterflies and other insects easily. A <u>simple leaflet of this</u> <u>app</u> was created and it will be available and printed in several languages.

#### Short videos

You can find short videos in the <u>Butterfly Conservation</u> <u>Europe YouTube channel</u>, several videos explaining the use of the app, the different methods and more.

- How to do a 15-min count?
- <u>Useful tips of ButterflyCount app</u>
- How to download your own data on eBMS?
- Register an account on eBMS



### Several languages

Thanks to the great job of the scheme coordinators, some of this material is available in other languages. You can find videos on the use of the app, website and more in <u>Portuguese</u>, <u>Spanish</u>, <u>Romanian</u> and Italian.



#### **EASY MOTH MONITORING**

The third monitoring option in the app is the moth trap, the latest feature added to register moths collected with a light trap.

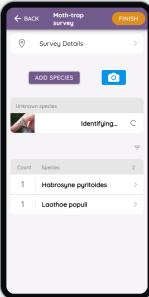
By pressing the purple centre button on the main page of the app, you can select Moth Survey and register a session of moth monitoring with a trap. All you need to do is register the trap: specify the light, the lamp and the type of trap. After selecting the trap and location, the survey details are filled in and you can add species on your cell phone.

The most interesting part of this app option is the integration of an **algorithm to identify automatically images of moths**. You can take picture or select the gallery and the app will identify the picture down to species level.

The automatic identification (AI) algorithm is based on the Observation.org database, therefore the AI is biased to Northwestern European species which can be identified down to species level. However, as more images are added, the AI will improve. The app offers the option "unknown" if an image cannot be identified, so later it could be done by experts. Of course, any record can be edited.







New technology will help us to easily monitor moths

Contact Us

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