BIMAG: translation into English of https://www.vlinderstichting.nl/bimag

- Home
- BIMAG

Farmers count butterflies themselves

Since 2019, LTO Noord, BoerenNatuur and De Vlinderstichting have been working together within the project Boeren Insecten Monitoring Agrarisch Gebied (BIMAG). Within the project, 115 enthusiastic farmers have counted moths and butterflies on their farms in recent years. They collected important information about the butterfly population in the countryside. BIMAG will be continued in the coming period and we want to monitor butterflies with 150 agricultural companies every year.

First results

The aim of BIMAG is twofold. By setting up fixed measuring points in the agricultural area and counting butterflies in a standardised manner, we gain a better insight into the development of the butterfly population in the agricultural area. In addition, the participants monitor moths on the farm, on intensively managed plots and at locations with a nature measure, which gives us a better picture of the effectiveness of the measures taken. The <u>first results</u> show that nature measures have a positive effect on the numbers and species of moths.

Better insight into biodiversity

Project Farmers Insect Monitoring Agricultural Areas (BIMAG)

The starting point of the BIMAG project is that butterflies and moths are counted in agricultural areas together with farmers. With this project, farmers are enabled to participate in multi-year research into insect populations in agricultural areas. In addition, by carrying out counts



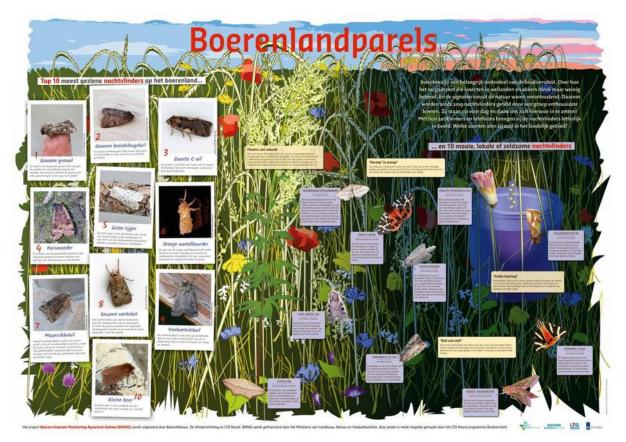
Figure 1. Farmers measure moths themselves using a special LedEmmer (Photo: LTO Noord)

themselves, the perspective of the farmer is included in biodiversity restoration.

Why do agricultural entrepreneurs participate?

Many agricultural entrepreneurs are already taking action for biodiversity on the farm. It is not yet clear what positive effects these measures have on insect populations. By means of monitoring, agricultural entrepreneurs gain better insight into what works well for biodiversity on your farm and plots. The Butterfly Foundation and the CBS are affiliated with the project to

analyse the monitoring data. Based on this analysis, a personal report is drawn up for each participant.



The poster about the BIMAG year 2022. It can be downloaded via https://assets.vlinderstichting.nl/docs/95ca816e-78b4-4cf7-b6a8-6ac7d66bf2f7.pdf

Which insect species do farmers count?

Agricultural participants count themselves or with the help of a volunteer. Two insect species groups are measured:

- 1. Butterflies are counted via a counting route. A counting route is a maximum of one kilometre long, a count takes about fifteen minutes. The route is walked once a week in accordance with the <u>butterfly measuring network</u>.
- 2. Moths are counted using a LedEmmer. At least once every two weeks in the period 1 April 1 October, three LedEmmers are placed. In the morning, when the moths are still, each individual moth is photographed. The photos are sent to De Vlinderstichting, which names them. In this way, standardised data is collected. The methodology of the moth measuring network is further adhered to here.

Do you have a question or are you interested in insect monitoring and would you like more information about the project Farmers Insect Monitoring Agricultural Areas (BIMAG)? Please contact project leader Rik Wever.

Variation in the amount of moths per night

Three LedEmmers are placed per company. There is a lot of variation in the amount of moths that are caught per night. Factors that play a role in the amount of moths in the trap include:

- Light competition: With a lot of light pollution, for example artificial light or the moon, fewer moths are found in the LedEmmer. With cloud cover you often count more moths.
 The moon is not visible then and the temperature often remains higher.
- Temperature: Moths are cold-blooded. This means that they first have to warm up before they can fly. They do this by first moving their wings vigorously. This costs energy and the moths therefore fly less under certain temperatures. The warmer it is, the less energy it costs and the more moths will end up in your LedEmmer.

Volunteers wanted!

The following farmers are looking for a volunteer to help them count the (night) moths on their property. Would you like to help count?

Please contact Rik.

BIMAG Manuals

- BIMAG search card for butterflies (pdf)
- Checklist butterflies BIMAG (pdf)
- BIMAG 2022 Manual (pdf)
- BIMAG Manual input via telephone (pdf) (pdf)
- BIMAG Manual input via the website (pdf)

Instructional videos

Explanation of entering moths via the website

Explanation of how to enter moth counts by telephone

Explanation of how to enter butterfly counts

Read more about BIMAG

- BIMAG brochure data 2020 (pdf)
- Farmers Insect Monitoring Agricultural Area Results 2022 (pdf)
- Farmers Insect Monitoring Agricultural Area Results 2023 (pdf)
- Fun and educational butterfly watching in Bimag (pdf)