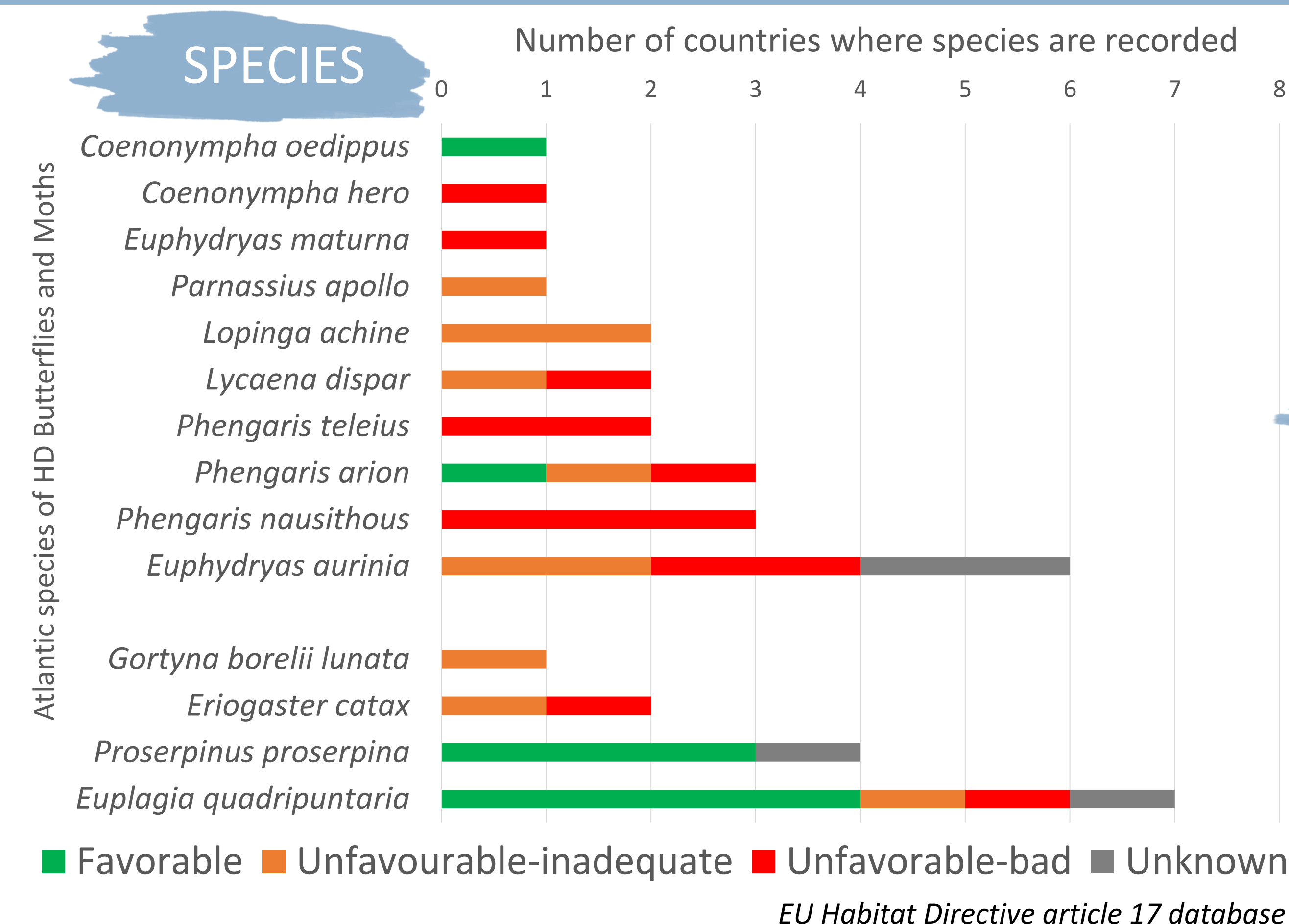
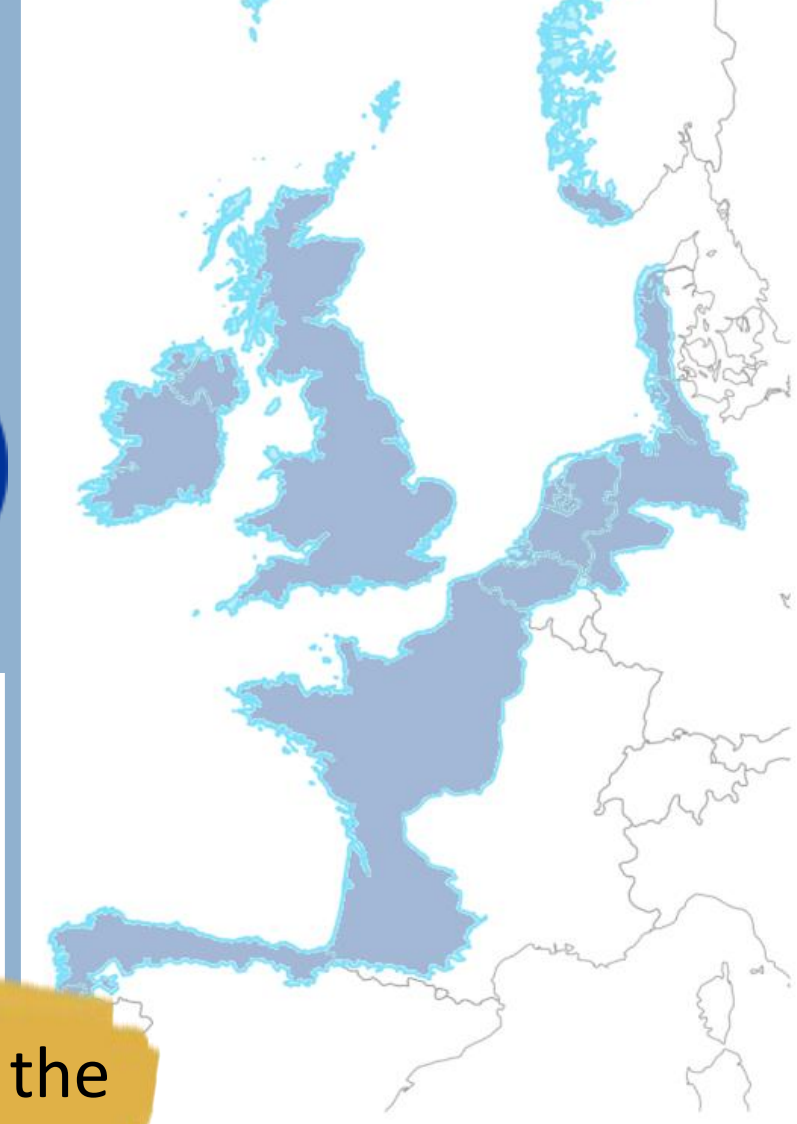


# Taking into account the distribution of butterflies to increase Protected Areas in Atlantic region for Pledges

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Even though the species are listed in the Natura 2000 (N2K) Directive annexes, they **remain under threat**. Conservation measures must be implemented as a matter of urgency and sustained.

*Pledge networking event, briefing note, March 2022*

**Phengaris nausithous**

Distributed in the Netherlands, Germany and Spain. In these all 3 countries, its conservation status is the worst case: **unfavourable – bad** (table).

Trends : Netherlands → **was increasing** in 2018; **last site almost destroyed** in 2020

Germany / Spain → **decline**

*Pledge networking event, briefing note, March 2022*

**Euphydryas aurinia**

Well distributed throughout Europe. Conservation status **unknown** in Portugal and Germany. Unfavorable in the 4 other countries : **inadequate** and **bad status** (table)

Trends : **stable or increasing**, except in France → **decline**

*Pledge networking event, briefing note, March 2022*

**Phengaris arion**

Its status and populations trends vary greatly between the 3 countries where the species is present.

UK: **Favourable** and **increasing**

France: **Unfavourable - inadequate** **unknown trend**

Spain: **Unfavourable – bad and declining**

*Pledge networking event, briefing note, March 2022*

**Pollinators**

The **French national action plan for Pollinators** led by two Ministries (Agriculture and Environment) Conserve pollinators while maintaining productivity for farmers

- develop tools to encourage farmers to **use less pesticides** and find solutions to replace them
- enhance favourable habitats for pollinators with **heterogeneous tree strata** and with **local species**
- supports testing of **EUPoM's** pollinator monitoring protocol within the **EU Spring project** and organizes stakeholders' meetings.

**Moths**

Increasing evidence for the **importance of Moths as pollinators**; an European Red List is almost published for these species. The **Spring project** is testing a **protocol to standardize the monitoring of Moths** throughout Europe.

## Recovery actions needed

### 1. Protected areas

**Preserve the natural environments** where species carry out their life cycle.

- Rare species : all sites should to be protected with **extension of existing protected areas**. *Bonelli et al., 2011*
- Mobile and rare species : areas between sites must be protected by **creating new protected areas**. *Bonelli et al., 2015*

### 2. Landscape scale vision

**Improve connectivity** between patches and implement **conservation on a landscape scale**.

### 3. Area management

- **Maintain traditional systems**, extensive agriculture, with low grazing pressure, pay attention to water levels, mow in winter. *LSPN 1987*
- In woodland, carry out rotational coppicing or thinning, **keep open environments**, and active management of the forest with clearings. *Van Swaay C. et al. 2021*
- **Preserve unmowed areas**, leave flowering hedges, **grassy strips** at the edges of plots and a few trees, allowing species to move around and find a variety of resources. *Warren et al., 2020*
- **Avoid the use of pesticides** and reduce fertilization in areas with sensitive soils. *Warren et al., 2020*

## HABITATS

3 most important habitats for Pollinators :

*Kudrnovsky et al. June 2020*

### Natural and semi-natural grassland formations

- Sclerophyllous scrub
- Temperate heath and scrubs

## Zoom in on three grassland butterfly species



Lowland hay meadows (*Sanguisorba officinalis*) (6510)



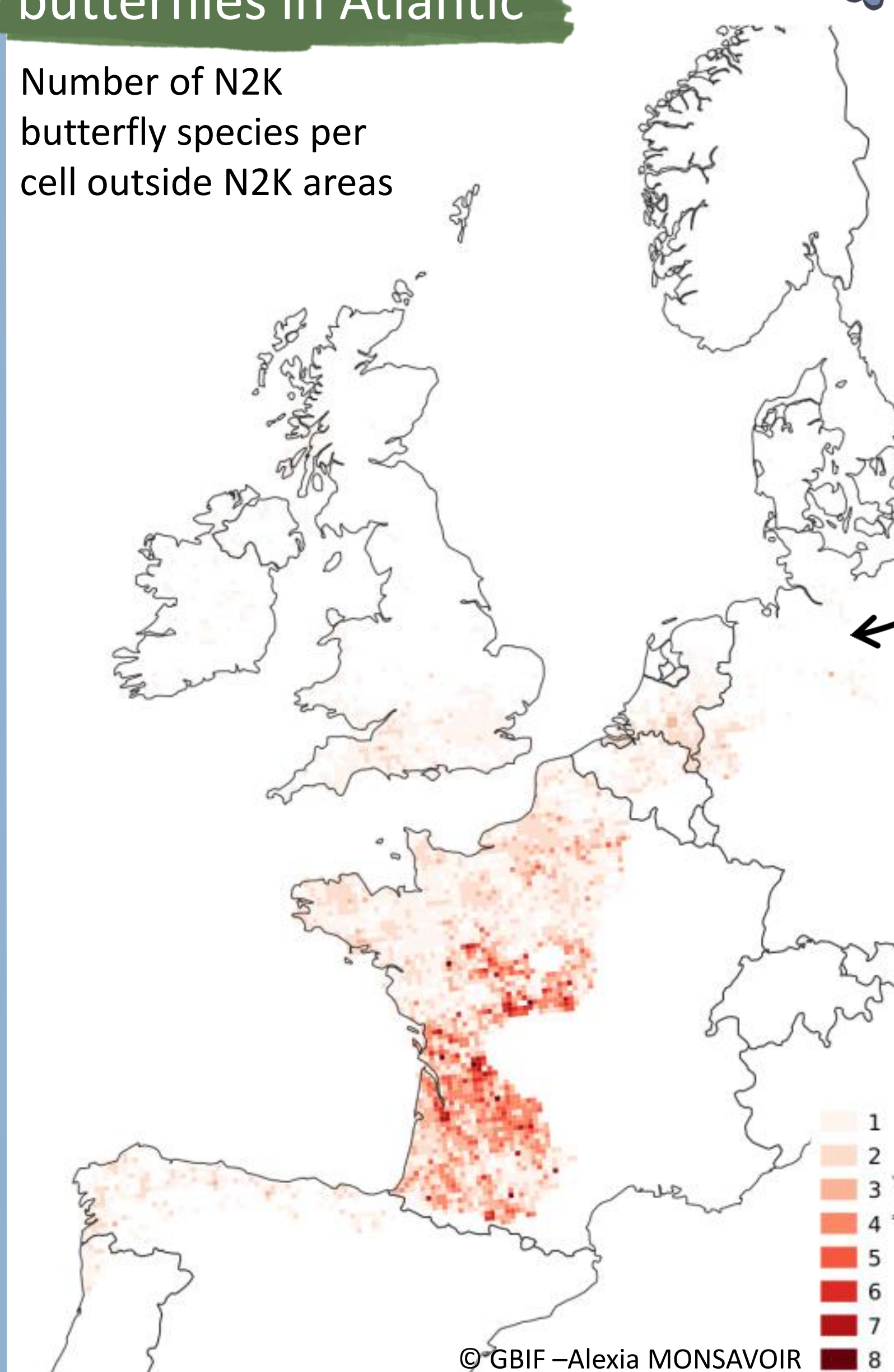
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinia caerulea*) (6410)



Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (6210)

## Protected areas for butterflies in Atlantic

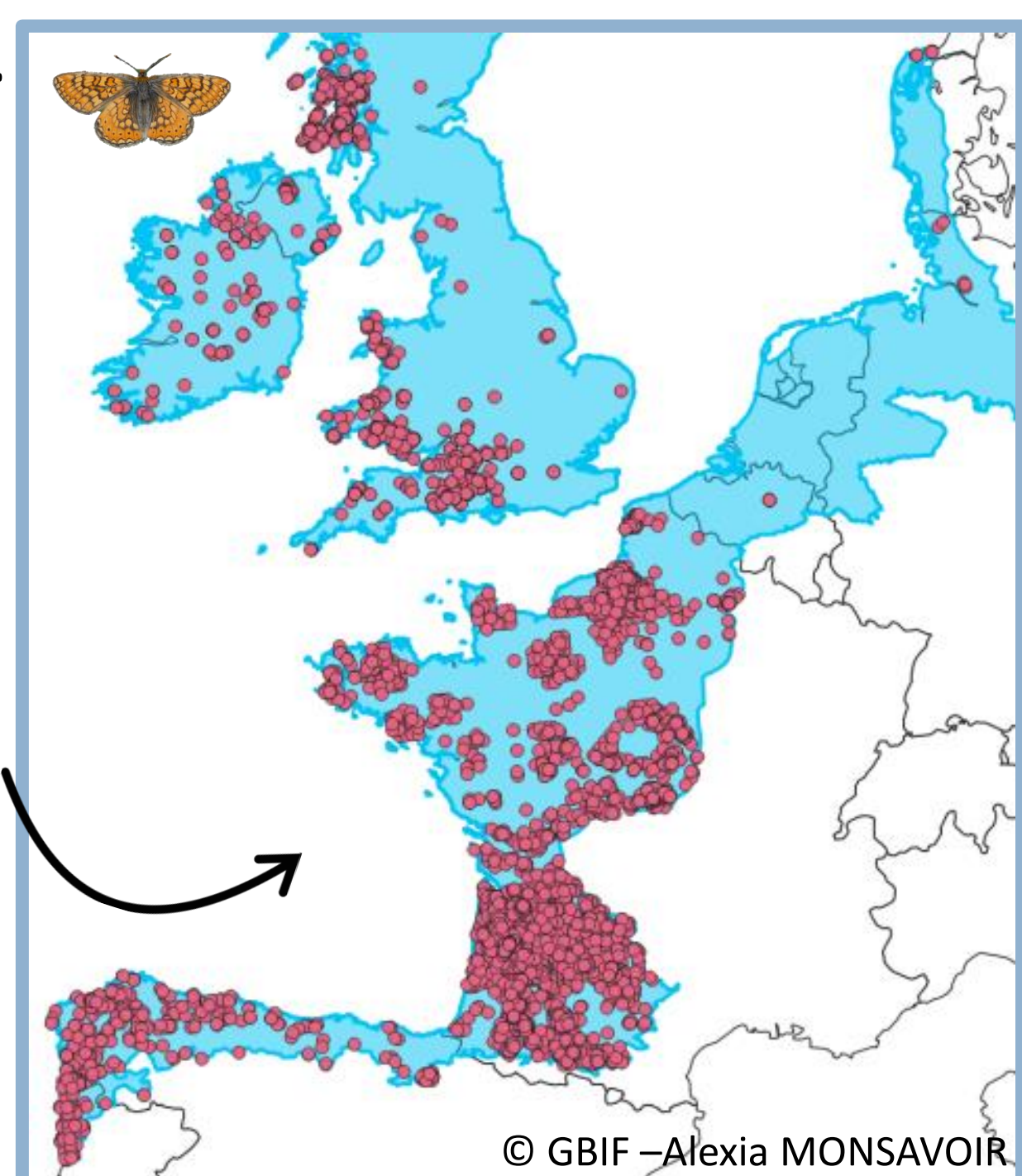
Number of N2K butterfly species per cell outside N2K areas



In Atlantic region **92% of observations of *Phengaris arion* are not in N2K areas**; an open forest species, *Lopinga achine* has **85% of its sites outside N2K areas**

The map displays observation data of number of Habitat Directive Atlantic butterfly species which are not in N2K areas.

**82% of observed *Euphydryas aurinia* specimens are recorded outside N2K areas** (red dots on the map, GBIF). So, it is vital to **restore habitats outside N2K areas** as well.



Citizen science EBMSchemes are now running in all EU Member States providing valuable monitoring data

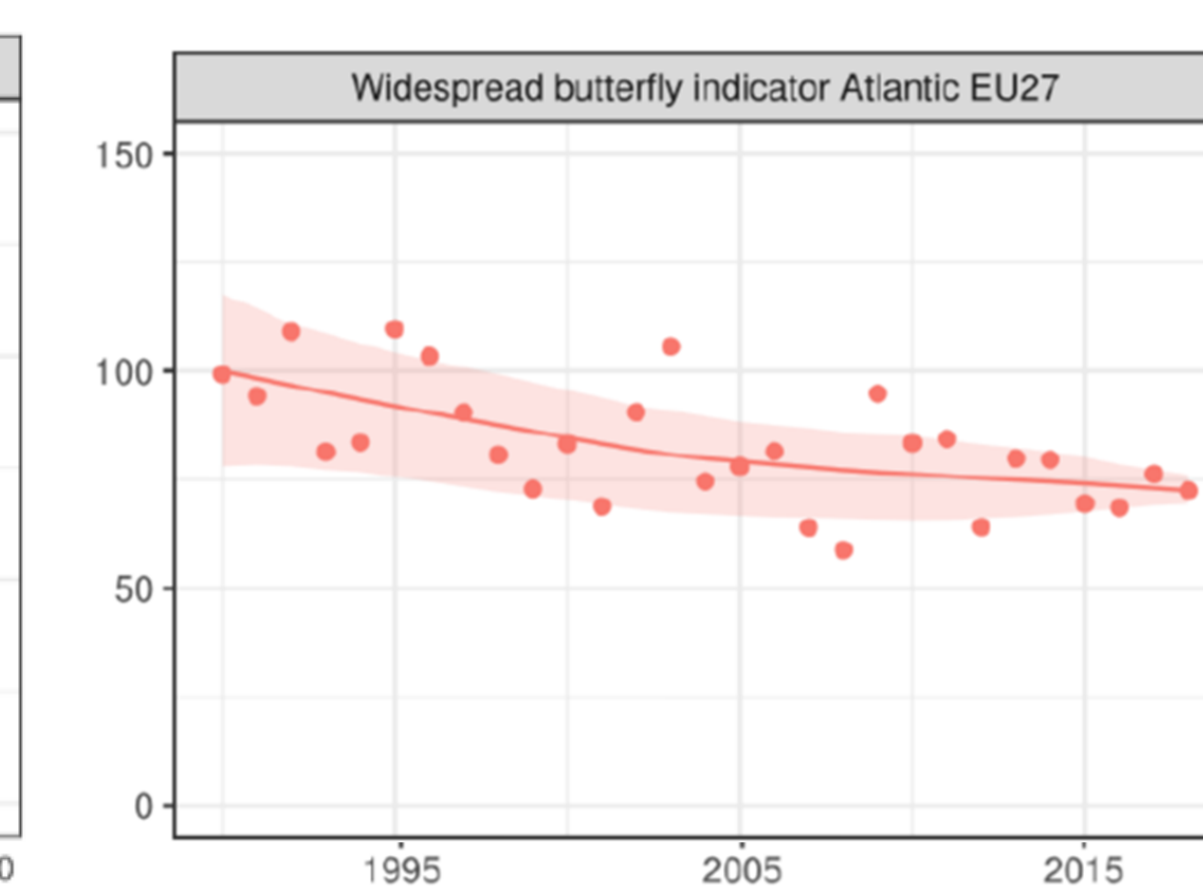
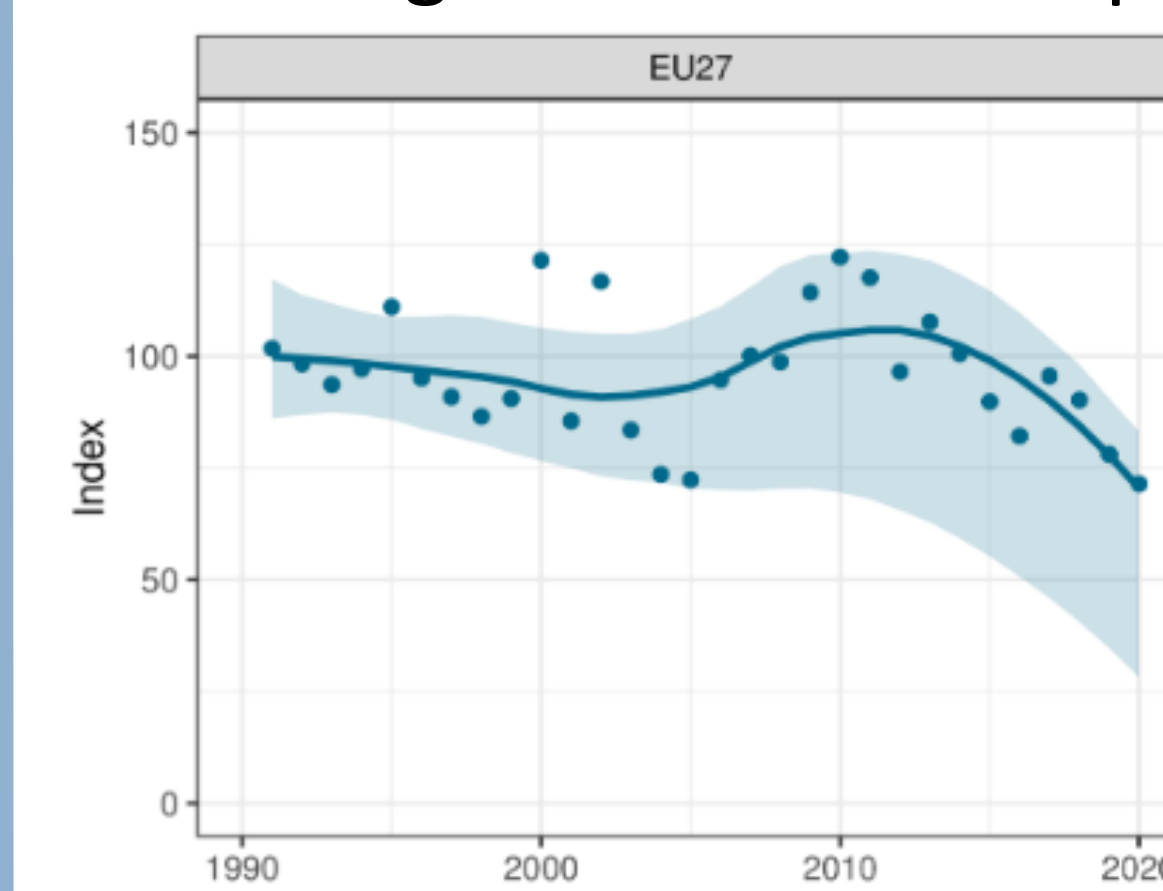
Monitoring biodiversity is essential :

Butterflies → perfect subject to study the state of biodiversity well documented / recorded in lots of habitats / sensitive to environmental variations / easy to recognize.

## European Grassland Butterfly Indicator

*Van Swaay, C. et al. 2020*

→ **combining trends for 17 grasslands species** throughout the 27 European Union countries



For the last ten years, the indicator has **declined by 32% across the European Union**

This indicator shows that in the **Atlantic region butterflies have declined substantially**

Support for national coordinators of EBMSchemes is provided in some countries; and it is needed in more EU Member States.

The European Butterfly Monitoring Scheme (EBMS) led by Butterfly Conservation Europe (BCE) measures changes in butterfly abundance.

<https://www.vlinderstichting.nl/butterfly-conservation-europe/>  
<https://butterfly-monitoring.net/>

