

**Butterfly Conservation Europe  
Activity report 2021**



**Butterfly**  
**CONSERVATION EUROPE**

# **Butterfly Conservation Europe Activity Report 2021**



## BCE on 31 December 2021

**Board:** Sam Ellis (chair), Chris van Swaay (secretary), Martin Wiemers (treasurer), Simona Bonelli, Evrim Karaçetin, Lars Pettersson and Constanti Stefanescu.

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March 2022



*BCE board and advisors in a zoom-meeting, September 2021. From upper-left to bottom- right: Martin Wiemers, Constanti Stefanescu, Sue Collins, Lars Pettersson, Aidan Whitfield, Sam Ellis, Irma Wynhoff, Mike Prentice (EBG), Evrim Karaçetin, Dirk Maes, Chris van Swaay, Rudi Verovnik, Cristina Sevilleja, Martina Šašić, and Simona Bonelli. Not on the photo: Miguel Munguira, Martin Warren and Josef Settele*

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## Introduction

By Sam Ellis, Chair of BC Europe

A warm welcome to our annual report on the activities of BC Europe during 2021. During 2021, BC Europe's activities were once again disrupted due to Covid-19. The Board met twice during the year, in April and September, but as in 2020, both meetings were held remotely by videoconference. After serving 12 years on the Board, Miguel Munguira stepped down but we are very pleased to welcome his replacement, also from Spain, Constanti Stefanescu of the Catalan Butterfly Monitoring Scheme. We are equally pleased to report Miguel had accepted an offer to remain an adviser to the Board so his knowledge and skills will be retained.

During 2020 BC Europe was very active in scoping and developing several new and exciting projects and it is a great pleasure to report that in 2021 several of these came to fruition. BC Europe joined forces with several organisation to successfully bid to develop a European pollinator monitoring scheme – Cristina Sevilleja and Martin Warren report below on how the SPRING project will build on ABLE and ensure the European Butterfly Monitoring Scheme continues to expand across Europe. Continuing with the monitoring theme, several BC Europe colleagues have been working with the IUCN SSC Butterfly and Moth Specialist Group to develop a global butterfly monitoring project, although funding is yet to be secured for this new venture.

I am also very pleased to report successful bids by BC Europe, in partnership with IUCN, De Vlinderstichting and Butterfly Conservation (UK), to produce European Red Lists for both moths and butterflies. The moth Red List will be a first and a massive undertaking covering which is already underway, whereas the Red List for butterflies is a revision and commences in 2022. Both projects will need the expert input from our network partners and we look forward to working with you on these projects. BC Europe was also successful in our LIFE4BEST bid for a project on Madeira's threatened endemic butterflies. Funding enabled several BC Europe representatives to help our partner, Madeira Flora & Fauna, with intensive surveys for the three target species. You can read more about all these projects below.



Thanks to Sue Collins, with support from Aidan Whitfield, BC Europe continues to play a very active role influencing environmental policy decisions in the EU. The main highlights of their work are also reported below, together with a summary of the work undertaken by Butterfly Conservation's European Butterflies Group.

Finally, I would like to thank all the BC Europe Board members and advisors for their hard work and support during the year. 2022 will be another critical year for conserving Lepidoptera and other insects. We look forward to playing our part in meeting this challenge.



## eBMS makes progress under SPRING

By Cristina Sevilleja (De Vlinderstichting), and Martin Warren (BC Europe)

We are continuing to expand the European Butterfly Monitoring Scheme (eBMS) by providing support to schemes and developing our online systems. Our plans have been given a huge boost through a major new EU project called **SPRING** (**S**trengthening **P**ollinator **R**ecovery through **I**ndicators and monitoring**G**). This aims to develop a European Pollinator Monitoring Scheme (EU-PoMS) to monitor the status of Europe's crucial pollinators. The continued development of the eBMS is a major part of this wider scheme and is by far the most advanced.

The main elements of the SPRING project are:

1. **Expanding the European Butterfly Monitoring Scheme (eBMS) by creating new schemes in 6 EU countries:** Denmark, Greece, Latvia, Lithuania, Slovakia and Romania. This will achieve complete coverage of eBMS partnerships in all EU Member States. It will also provide ongoing support to the 10 national schemes that were set up under the ABLE project. Butterfly monitoring uses standardised transects and is mostly carried out by trained volunteers as a form of citizen science.
2. **Building up the capacity of citizen science networks on pollinators across Europe.** Some EU countries have a strong baseline of citizen science whereas other countries, particularly in southern and eastern Europe, currently have very little citizen science capability. The project will recruit and train more coordinators and volunteers across Europe who are willing to collect data on butterflies, moths, wild bees and hoverflies from the field and report it to the newly developed online database.
3. **Organising advanced taxonomic training** for the next generation of taxonomists in Europe, with a focus on wild bees and hoverflies. The aim is to achieve a minimum expert capacity in each EU Member State that can deliver the EU Pollinator Monitoring Scheme (EU PoMS). The experts will be capable of identifying most specimens to species level, with support from the established advanced taxonomy institutes for the remainder of the specimens.
4. **Piloting a Minimum Viable Scheme (MVS) for wild bees, butterflies and hoverflies** by monitoring a small number of sites in every EU Member State, using standardised transects walked by professionals and volunteers. Wild bees and hoverflies will also be monitored by professionals using pan traps.
5. **Monitoring rare and threatened species** by professionals using a variety of species-specific methods.
6. **Monitoring moths by volunteers using light traps.** Setting up robust monitoring of moths across the EU will be a complement of the MVS. A standardised LED trap for capturing moths will be tested for its use in different habitats and climates.



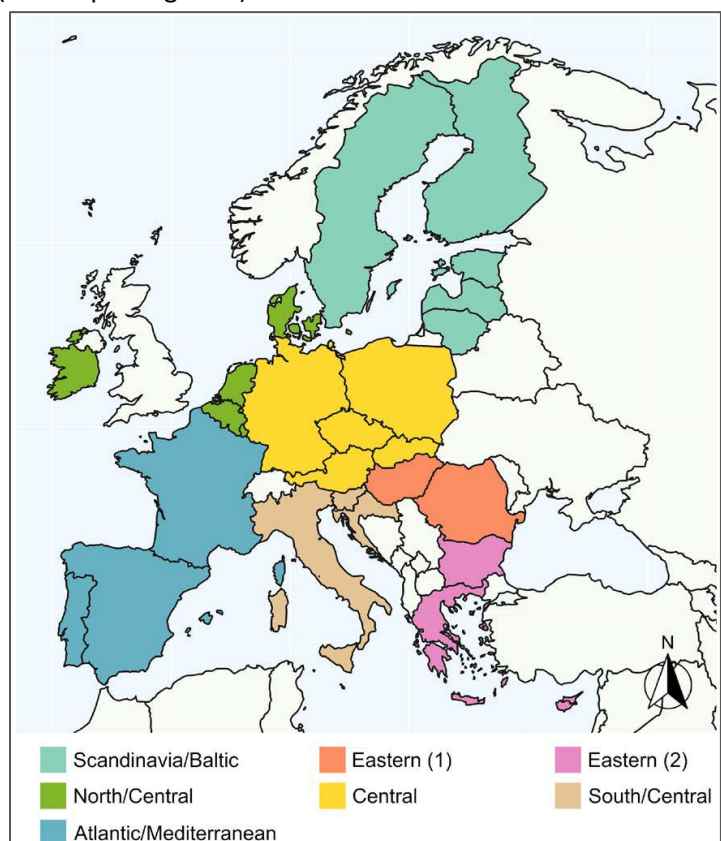
The SPRING project is funded by a service contract from the European Union Directorate General for the Environment. The project report will make recommendations for establishing a scientifically robust and sustainable **EU Pollinator Monitoring Scheme (EU-PoMS)** that will provide a series of

indicators, capable of detecting any significant changes in the abundance of pollinators across the whole of the EU.

The SPRING project is led by the Helmholtz Centre for Environmental Research (UFZ, Germany), working with 18 partners: the Université Libre de Bruxelles (Belgium), the University of Mons (Belgium), the University of Helsinki (Finland), the Finnish Museum of Natural History (LUOMOS, Finland), the Senckenberg Research Institute (Germany), the University of The Aegean (Greece), the Centre for Ecological Research (CER, Hungary), the Council for Agricultural Research and Economics - Research Centre for Agriculture and Environment (CREA-AA, Italy), the Naturalis Biodiversity Centre (Netherlands), the European Invertebrate Survey (EIS, Netherlands), , the University of Novi Sad (Serbia), the Ecological and Forestry Application Research Centre (CREAF, SPAIN), the University of Alicante (Spain), Lund University (Sweden), the UK Centre for Ecology and Hydrology (UKCEH, UK), the University of Reading (UK), Butterfly Conservation Europe (BCE), Dutch Butterfly Conservation, and Butterfly Conservation (UK).

To ensure representative coverage across all biogeographical zones, Europe has been divided into 6 regions with the lead country shown in bold (see map of Figure 1):

- Region 1. Scandinavia/Baltic: **Sweden**, Lithuania, Latvia, Finland, Estonia
- Region 2. Eastern 1. **Hungary**, Romania
- Region 3. Eastern 2. **Greece**, Bulgaria, Cyprus
- Region 4. Atlantic/Mediterranean. **Spain**, France, Portugal
- Region 5. North/Central. Netherlands, Belgium, Denmark, Ireland, Luxembourg.
- Region 6. Central. **Germany**, Czech Republic, Austria, Poland, Slovakia
- Region 7. South/Central. **Italy**, Croatia, Malta, Slovenia



*Figure 1. The six regions of European Union countries for the coordination under SPRING project.*

## Global butterfly monitoring

By Sam Ellis (Butterfly Conservation-UK) and Chris van Swaay (De Vlinderstichting)

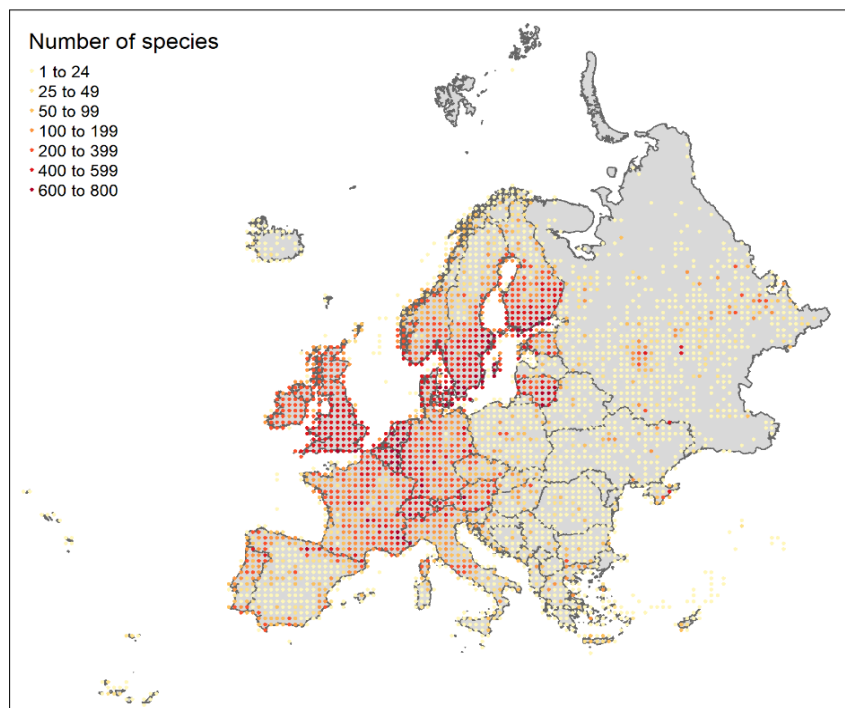
Plans are growing to promote butterfly monitoring across the globe. The IUCN Butterfly and Moth Specialist Group (IUCN BMSG) held a very successful meeting in October 2021 to discuss the topic. Following a series of talks there was much useful discussion which demonstrated that butterfly monitoring was already well underway in many parts of the world. Plans to hold a much wider (in terms of participants) global butterfly monitoring meeting on the back of an existing conference were supported, possibly at the Biology of Butterflies meeting to be held in the Czech Republic in 2023.

A global butterfly monitoring project proposal is now being revised to reflect the widening participation of colleagues from the IUCN BMSG, but further progress is being hampered by the absence of potential funders. Fortunately, Butterfly Conservation plans to commit more staff time to the project from June 2022, focusing on building partnerships with organisations and individuals running butterfly monitoring schemes around the world and establishing data sharing agreements with partners. Fundraising efforts by BC UK will also be stepped up.

## European moth Red List

By Chris van Swaay, Jurriën van Deijk (De Vlinderstichting) and Sam Ellis (Butterfly Conservation - UK)

As part of a major update of European Red Lists by IUCN, we have secured a contract to produce the first ever Red List of European Moths. This is a vast undertaking but will be an invaluable product. The main leads are Jurriën van Deijk (de Vlinderstichting), Phil Sterling (BC UK) and Mark Parsons (contractor to BC UK), with support from Chris van Swaay and Sam Ellis. The review will focus on 2500-3000 larger moth species as there is much more distribution data available for these than for micro-moths. As with other projects we will rely on the expertise of our European partners. As a first step preliminary maps have been made for all species and sent to national experts for



*Figure 2. Number of larger moth species per 50 square kilometers in the current database*



consultation. An initial list of the current number of species per 50 square kilometre can be found in Figure 2. The Red List should be completed by March 2024.

## European butterfly Red List

By Martin Warren (BC Europe)

The last European Butterfly Red List was published in 2010, so is now already quite out of date. As with the moths, IUCN have contracted us to produce a revised Red List by September 2023. The new analysis will draw on species trends now available for the first time via the eBMS, complemented by an analysis of much improved distribution data. As with the last Red List, expert opinion will still be crucial to the project's success and an online review workshop will be organised in autumn 2022.

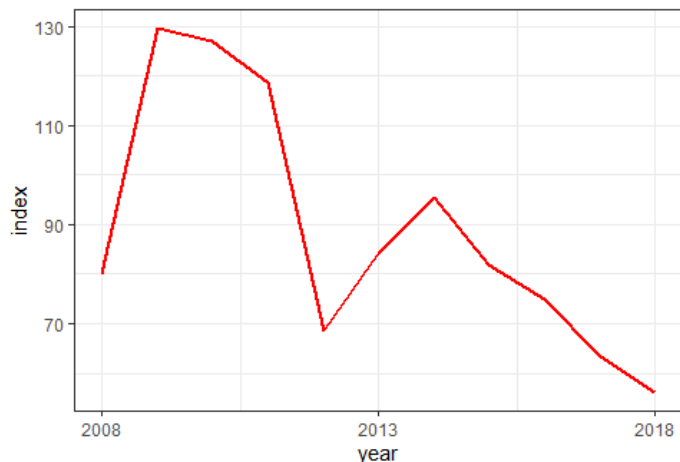


Figure 3: European population index of *Thymelicus lineola* as coming from the eBMS shows a strong decline over the last ten years. The species is still widespread in most of Europe.

## Conserving Madeira's endemic butterflies

By Sam Ellis (Butterfly Conservation-UK)

BC Europe, together its partner on the island Madeira Flora & Fauna (MF&F), has successfully secured funds for this project from EU's Life4BEST programme which finances biodiversity action in Europe's Outermost Regions. The aims are to identify key areas of habitat for the island's endemic butterflies (Madeiran Brimstone *Gonepteryx maderensis*, Madeiran Speckled Wood *Pararge xiphia* and probably extinct Madeiran Large White *Pieris wollastoni*). Other aims are to build monitoring capacity amongst local stakeholders, establish a monitoring programme, raise awareness amongst both the local people and tourists, and produce Action Plans for the target species.

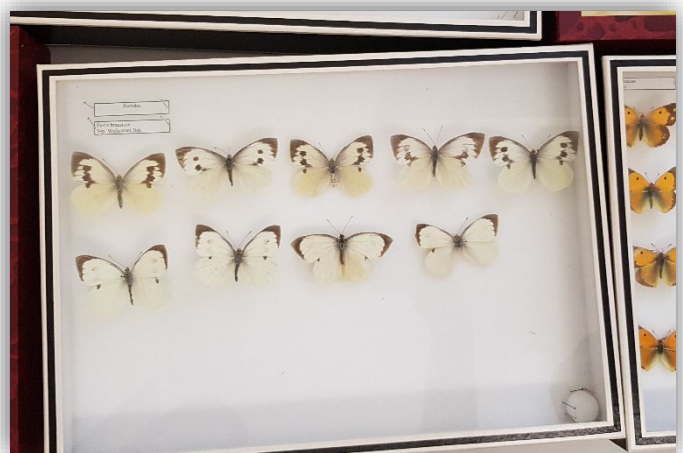


Figure 4. *Pieris wollastoni* individuals in the insect collection of the Funchal's Natural History Museum. Picture by Chris van Swaay

The first seven-month period of the project has now been successfully completed. Surveys for the three target species were carried out on 49 sites in Sept and Oct 2021 by BC Europe board members/advisers, BC Europe volunteers and MF&F. In total 648 15-minute Counts were completed recording >10,000 butterflies of 14 species. *G. maderensis* was much more restricted in distribution than *P. xiphia*, but no *P. wollastoni* were recorded and this species must now be presumed extinct.

The second project period will focus on establishing the Madeiran Butterfly Monitoring Scheme with training provided for volunteers and staff of local stakeholders, as well as producing action plans for the target species.

## Influencing European policies

By Sue Collins, European Environmental Policy Advisor, BC Europe

Chief areas of work include the implementation of the **EU Biodiversity Strategy 2030** (EU BDS 2030); **CAP Strategic Plans**; the **EU Pollinators Initiative** implementation; use of **butterfly monitoring** data, trends and indicators; and development and implementation of the **SPRING** project (see above).

BCE is grateful to Aidan Whitfield who has been assisting with policy work as a volunteer, especially on forestry; and to Tim Foulds, volunteering for BCE, who has carried out extensive analysis of **MSs and EU level Habitats Directive Article 17 Reports** on butterflies, grasslands and pollinator habitats, helping to underpin BCE's advice to the EU on butterfly conservation, restoration and CAP Strategic Plans. Sue Collins and Sam Ellis developed a Conservation Knowledge Project for which BCE is seeking funding. This would help deliver tailored advice, accessible on-line to farmers, farm advisors and other land managers, to support effective conservation efforts.

BCE submitted **responses to EU Stakeholder Consultations** on Road Maps for Implementation of EU BDS 2030; on Ecosystem Restoration; the planned EU Biodiversity Partnership; and on the EU Forest Strategy.

As Vice Chair of the European Habits Forum (EHF), Sue Collins has helped develop a range of **EHF position papers**, including on implementing EU BDS 2030 targets on Restoration, Protected Areas and Pollinator Recovery. Sue is joint coordinator of the **EHF Pollinators Working Group** and BCE has contributed to a number of expert consultation workshops and given advice on the Review of the EU Pollinators Initiative and development of future action to improve pollinator conservation and recovery, in both rural and urban landscapes. Sue has represented EHF at informal meetings with **EU Member State Nature Directors**, led by the EU Presidencies and has participated in EU CGBN meetings which oversee implementation of the EU BDS, evaluate progress and develop new approaches.

BCE submitted detailed advice to DG Environment and to their consultants, Trinomics, on using butterfly data (from eBMS; Art 17; and Red List Assessments) to help formulate **possible binding restoration targets for pollinators, including butterflies and their habitats, particularly semi natural grasslands in the planned new EU Restoration Law**. BCE advocated, in line with other NGOs, an overall target for restoration of 15% of EU land area by 2030. In addition, BCE emphasised the

necessity of ensuring the quality of restoration by targeting recovery of habitats and species as well as areas of ecosystems and gathering and using butterfly field data for evaluation. BCE met **DG Environment on 29 April 2021 to discuss these issues.**

The EU Commission has reminded EU MSs that there is an obligation, in Art 6.2 of the Habitats Directive, to **prevent deterioration for listed species** and appropriate Conservation Objectives need to be set for Natura 2000 sites. BCE participated in a meeting, in March 2021, of the EU Expert Group on implementing the EU Nature Directives (NADEG) on “Setting Conservation Objectives for Natura 2000 sites” - this offers opportunities for greater protection in practice for butterflies - both listed ones and typical species and their habitats. BCE’s Do’s and Don’ts for management of Habitats Directive butterflies is useful here.



*Figure 5. Parnassius apollo female.  
Picture by Chris van Swaay*

The EUBDS 2030 includes a **commitment to recovery of 30% of Habitats Directive listed Habitats and Species which are in unfavourable declining condition.** Most listed butterflies are in this state and BCE have pressed for their restoration to be prioritised and included in MS’s Pledges to meet the EU targets. **BCE also have an opportunity to develop proposals for adding new Protected Areas in MSs to cover not only butterflies and moths of European importance but also other Red Listed species. BCE has done some mapping work in support of this, especially work by Simona Bonelli in the Alpine Region.** MSs will be developing their Pledges in 2022 and a networking event on butterflies and EU BDS Targets is planned with the EU and MSs.

BCE participated in the debate across the EU in 2021 about how to **implement the (non-binding) EU BDS 2030 target of 10% of EU land to be “Strictly Protected” PAs.** The agreed definition now includes not only virgin forests (non- intervention areas) but also semi natural grasslands, (which can be irreversibly damaged by ploughing and fertilisation) and need management measures, like mowing or grazing, to meet the ecological requirements of listed species, including butterflies and other insect pollinators. Sue gave a presentation on ecological restoration for butterflies and other pollinators to the Annual meeting of EU Society for Ecological Restoration in September 2021.

The **architecture of the EU CAP regime has been revised.** There is a significant risk that the revised regulations will not be strong enough to secure biodiversity recovery across the farmed landscape. The best hope is that the guidance from the EU which links Nature and Environmental legislation implementation in MSs’ CAP Strategic Plans will secure some improvements through new “Eco Schemes”, cross compliance and targeted Agri-environment measures. MSs are required to involve

Environmental Authorities in the preparation of CAP Strategic Plans, but this has rarely happened so far. These Plans will eventually be subject to Strategic Environmental Assessment.

A footnote has been added to the EU documents setting out the post 2020 CAP Framework, supporting the inclusion of a wild **Pollinator Indicator, when available, in the Evaluation framework for the CAP**. This could be implemented starting with data on butterflies - something BCE have been pressing for, for a long time and where improvements we have secured in eBMS data coverage have made a useful contribution to support for such an indicator.

As Vice Chair of the European Habits Forum (EHF), Sue Collins has helped develop a range of **EHF position papers**, including on implementing EU BDS 2030 targets on Restoration, Protected Areas and Pollinator Recovery. Sue is joint coordinator of the **EHF Pollinators Working Group** and BCE has contributed to a number of expert consultation workshops and given advice on the Review of the EU Pollinators Initiative and development of future action to improve pollinator conservation and recovery, in both rural and urban landscapes. Sue has represented EHF at informal meetings with **EU Member State Nature Directors**, led by the EU Presidencies and has participated in EU CGBN meetings which oversee implementation of the EU BDS, evaluate progress and develop new approaches.

Sue has been pressing for more EU support for systematic biodiversity monitoring and BCE has welcomed the development of the EU Biodiversity Partnership and the inclusion of €104m to **support biodiversity monitoring** over the next 7 years; BCE is seeking more support from more MSs for eBMS coordination and data analysis, to improve the sustainability of butterfly monitoring schemes and to increase the number of transects walked and data recorded.



## European Butterflies Group

By Mike Prentice, Chair, EBG

European Butterflies Group is a “virtual” branch of Butterfly Conservation for those members who have a particular interest in European butterflies and moths. EBG regularly organises surveys to assist with the conservation of particularly endangered species and cooperates with Butterfly Conservation Europe in encouraging members to record and monitor whether regularly or on a casual basis when abroad. Unfortunately, all field activities were curtailed again in 2021 due to COVID although the recipient of our bursary, Juan Pablo Cancela was able to complete his fieldwork which was delayed from 2020.

Since we were unable to undertake any fieldwork, we continued to update our website ([www.european-butterflies.org.uk](http://www.european-butterflies.org.uk)), which contains a wealth of material and regular news items. One of our members, Paul Browning, revised and updated his book *Butterflies of the Iberian Peninsula* (originally published in 2011) and generously allowed us to place a free downloadable copy on the website. This has now been downloaded well over 2,000 times with many from Iberia downloading the book. Another member, Bill Raymond, has produced photographic guides to various families of European butterflies. Having started with *Gonepteryx* and Pierids, Bill has concentrated on the Fritillaries producing three guides to the smaller fritillaries and one for medium and large species. All of these fritillary guides are available individually and they have also been combined into one large downloadable file.

Membership of European Butterflies Group comprises approximately 700 (who are all also members of UK’s Butterfly Conservation). We had planned to extend membership in 2020 to overseas members (for an annual membership cost of €15) but these plans were hit by the pandemic and we now hope that this will be possible from April 2022.

Plans are already in hand for 2022: we plan to undertake further searches in Romania for both broods of Danube Clouded Yellow *Colias myrmidone* (in conjunction with Jacqueline Loos and Matthias Dolek), complete the surveys for Spanish Greenish Black-tip *Euchloe bazae iberae* (working with Yeray Monasterio of Zerynthia) and visit Greece to search for Dil’s Grayling *Pseudochazara orestes*.

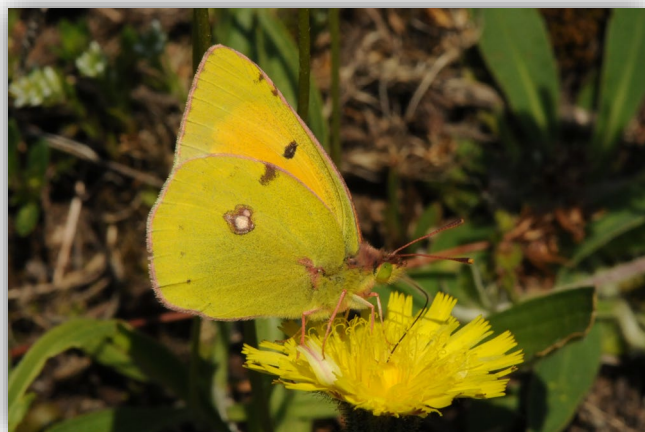


Figure 6. *Colia myrmidone* species. Picture by Martin Davies.



## Website

We are continuing to update the new BC Europe [website](#) after the old one was hacked just over a year ago. We are grateful to De Vlinderstichting for hosting our new site, which will hopefully be far more secure.

## Social media

Our social media following continues to grow steadily: our Facebook page now has over 3,600 followers ([www.facebook.com/ButterflyConservationEurope](https://www.facebook.com/ButterflyConservationEurope)) and our Twitter (@europebutterfly) account has grown to over 2,600 followers. We are very grateful to Cristina Sevilleja and Sue Collins for running these accounts.

## Acknowledgements

We are very grateful for the ongoing financial support of Butterfly Conservation (UK) and Dutch Butterfly Conservation (De Vlinderstichting). We would also like to thank the Board and Partners of BC Europe who give their time freely.

