

**Butterfly Conservation Europe
Activity report 2017**



Butterfly
CONSERVATION EUROPE

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Photo: Chris van Swaay

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May 2018



Some of the BCE board and advisors, Laufen (D), November 2017. From left to right: Miguel Munguira, Rudi Verovnik, Lars Pettersson, Irma Wynhoff, Chris van Swaay, Martina Šašić, Paul Kirkland, Martin Wiemers, Dirk Maes, Mike Prentice, Sue Collins and Martin Warren.

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Introduction

It was a great pleasure for me to meet so many of our partner organisations at our partner meeting at the Kapuzinerhof in Laufen (Germany) in November 2017. This place, where we have held all our partner meetings, feels a bit like the home of BCE. There were great discussions on open data, monitoring and the conservation of butterflies, all in the pleasant and warm surroundings of the Kapuzinerhof.

In 2018 we hope to continue working on the eBMS. Together with CEH we have been developing this database, which now contains the butterfly monitoring data of at least twelve countries. More and more organisations are discovering this great resource of valuable data and there have already been several requests for data. We have good hopes for extending the eBMS in the near future, which then will be one of the largest citizen science collections of standardized butterfly counts in the world.

Taxonomy is the basis for all our conservation work. BCE board members Rudi Verovnik and Martin Wiemers have taken the lead to update the Fauna Europaea for butterflies. We hope that soon this website will show the latest taxonomy for European butterflies.

2018 will start with the Butterfly Conservation Symposium in Southampton, organised by our partner Butterfly Conservation UK. I look forward to meeting many of our partners and butterfly enthusiasts over there.

I wish you all a very butterfly rich year.

Chris van Swaay
Chair BC Europe



Chris van Swaay on La Palma. Photo: Irma Wynhoff

BC Europe Fifth Partner meeting, Laufen

By Martin Warren, Head of Development, BC Europe

We held our fifth meeting of BC Europe Partners in our usual venue at Laufen from 29th November to 2nd December 2017. The theme was Recording and Monitoring butterflies across Europe. The meeting was one again highly successful and attracted 58 delegates from 29 countries. After a welcome from Chris van Swaay and round table introductions, the first full day was devoted to butterfly monitoring across Europe and policy development.

David Roy gave a summary of the excellent progress being made by the Centre for Ecology and Hydrology in gathering data from existing scheme into a unified database on behalf of BC Europe. Constanti Stefanescu gave a fascinating overview of 20 years of the Catalan scheme, and Mikko Kuussari, Miguel Munguira and Milos Popovic gave updates from schemes in Finland, Spain and Serbia respectively. In the afternoon, Sue Collins led a discussion on policy opportunities and Michaela Schwedeler from the EU DG-Environment announced the new EU Pollinator Initiative. We subsequently circulated the link to all BC Europe partners to encourage them to submit a response to a vital EU consultation. Chris van Swaay then updated us on the new regulations surrounding Article 17 reporting.



Delegates to the BC Europe meeting in Laufen, December 2017

Day 2 focussed on butterfly recording and data sharing across Europe. We were privileged to have Donald Hobern from GBIF explaining how their portal works and how important it was that BC Europe and its partners contributed to this massive open access database. Open data issues, pros and cons were then discussed by Lars Petterssen from Sweden (who have embraced open data) and Nigel Bourn from BC-UK (who are moving to a more open data model after consultation with recorders). The enormous value of distribution data was then highlighted by Josef Settele (who explained the IPBES process), Eva Monteiro from Portugal, and Chris van Swaay who had analysed some of the freely available butterfly distribution data to get some impressive trends.

After lunch, we had a workshop session where we discussed blockages to sharing records, as well as how we can mobilise holiday records and validate data. We also discussed the tricky topic of identifying sensitive species and how much of this data to make public. The consensus was that there were very few species that needed blanket protection of their records, but some especially sensitive sites might need to be kept secret. This would be left to individual countries to determine. The results of the workshop will be incorporated in a report by Dutch BC to GBIF on how they could gather more European butterfly records.

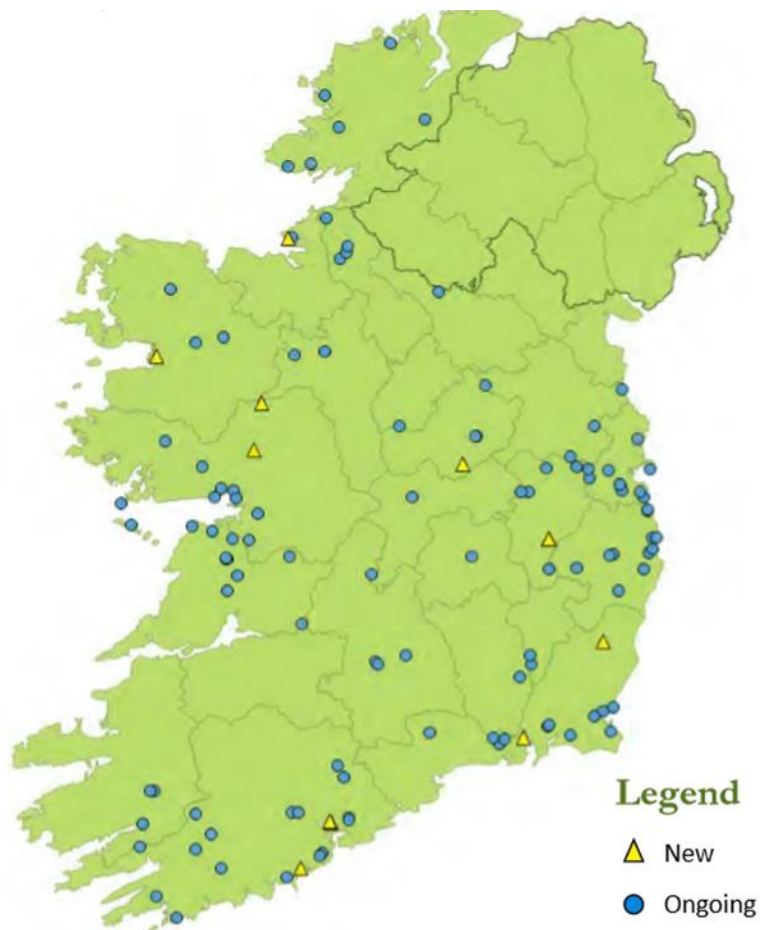
In between the invited presentations, we had some lively and speedy sessions where each BC Europe Partner summarised their activities. Finally, our partner and host in Bavaria, ANL, gave a series of presentations on their important butterfly research, especially on threatened species such as *Colias myrmidone* and *Coenonympha oedippus*. These and all the presentations can be found by [following the link on the BC Europe home page](#).



Welcome to two new partners

By Martin Warren, Head of Development, BC Europe

During the year, we were pleased to welcome two new Partners to the BC Europe network. From Kosovo, we welcomed the Faculty of Mathematics and Natural Sciences, University “Hasan Prishtina” Prishtina, with Ferdije Zhushi Etemi as contact. In Latvia, we have now appointed the Entomological Society of Latvia as our new Partner with Sintija Elferte as contact. In Ireland, our formal partner has changed to the Irish National Data Centre which co-ordinates butterfly recording and monitoring across the country. BC Europe now has a thriving network of 49 Partners in 37 countries.



The Irish Butterfly Monitoring Scheme celebrated its 10th year in 2017. It now monitors 123 transects using 118 butterfly recorders. A report can be found on http://www.biodiversityireland.ie/wordpress/wp-content/uploads/Butterfly-Monitoring-Newsletter-2018-v2_lowres.pdf

Influencing European policies

By Sue Collins, European Policy Advisor, BC Europe

It was a busy year in Europe following up the conclusions of the EU Fitness Check on the EU Nature Legislation. Fortunately, this concluded, late in 2016, that the Habitats Directive is Fit for Purpose and improvements are needed in implementation, enforcement and funding. As Vice Chair of the European Habitats Forum and on behalf of BC Europe I participated in meetings with other NGO networks in EHF and meetings with the EU Commission, Member State officials, the EEA and other stakeholders both in the EU Coordinating Group on Biodiversity and Nature (CGBN) and in the informal Nature Directors' meeting in Estonia.

As NGO Stakeholders in BC Europe and EHF we have continued to press at EU level for more resources for nature conservation, including more concerted action to improve the conservation status of habitats and species listed in the Habitats Directive Annexes. Commitments to do this are set out in the EU Nature Action Plan. Two Species Action Plans are envisaged and consultants have been asked to advise on criteria for selecting these. I proposed that conservation status, dependence on agricultural activities and contribution to the health of pollinators should all be taken into account; and argued that there is strong evidence to suggest that semi natural grassland conservation should be a high priority for an EU Habitat Action Plan.

Two other key policy issues have been subject to much debate during the year. These are the forthcoming Reform of the Common Agriculture Policy (CAP) and the future EU Budget – which is subject to negotiations on the EU Multi Annual Financial Framework (MFF). This is a challenging period, given the importance of shifting the way CAP monies are spent and the need to increase resources for nature conservation, whilst anticipating a reduction in the overall EU budget from 2020 to 2027. The latter challenge is driven by the fact that the UK is a net contributor to the EU Budget at present and the UK is expected to depart (BREXIT) from the EU at the end of 2019.

A consortium of NGOs is lobbying hard for CAP Reform to increase the contribution of agriculture to the recovery of biodiversity. The latest EU Court of Auditors Report on the CAP Greening concluded that, as currently implemented, it is unlikely to significantly enhance the CAP's environmental and climate performance and that the budget of 30% of Pillar 1 payments is mainly acting as an income support measure. They recommend specific environmental targets for CAP 2020, based on up to date scientific understanding; and a requirement that where Members States had flexibility in implementation they should demonstrate how their choices would ensure delivery of the policy objectives. Such a requirement would be an important safeguard for nature dependent on agriculture.

Throughout these discussions I have continued to highlight the evidence of declines in the abundance of Lepidoptera and the urgent need to stem losses in the quantity and quality of semi-natural grassland as a key habitat. I have also continued to press for a commitment to develop an effective EU Initiative to reverse the decline in Pollinators and their habitats. This was achieved in late 2017. BC Europe submitted detailed proposals to influence the EU Road Map for this EU Pollinators Initiative. Priorities emphasized by BC Europe, working jointly with Buglife and other NGOs, included reforms of the CAP to improve semi natural grassland extent and condition; reductions in toxic pesticide use, particularly neonicotinoids; the use now of butterfly data and indicators as proxy measures for the health of pollinator habitat; and the need to invest in more monitoring of pollinators in future.

Other issues pursued during the year include investing in Green Infrastructure and the recovery of more connectivity, both structural and functional, across landscapes. BC Europe responded to three EU Consultations in late 2017; these related to the Sustainable Use of Pesticides; implementation of the EU Invasive Species Directive; and support for the EU LIFE Programme and an increase in its budget.

BC Europe supported and I supervised 2 Cambridge University MPhil students during the year. Thank you to several partners who discussed their work with them and provided invaluable information. They completed dissertations on Ideas for an EU Pollinators Initiative and brief Case Studies on Urban Butterflyways.

As a member of the Strategic Advisory Board of the EU EKLIPSE project, I helped to prioritise requests for knowledge compilation on biodiversity and ecosystem services. An EKLIPSE Report on agriculture and biodiversity is expected in 2018.

Another exciting development was that we are delighted that the EU Parliament has approved a budget of Euros 800,000 for a 2 year Butterfly Monitoring and Indicators Pilot Project and we look forward to the call during 2018 for bids to implement this.



Bees and butterflies are important pollinators. Photo: Kars Veling.

eBMS progress

By David Roy, Centre for Ecology and Hydrology (UK)

The European Butterfly Monitoring Scheme (eBMS) is being developed by the Centre for Ecology and Hydrology (CEH) on behalf of BC Europe. Its aims are:

1. To build a collation of national BMS datasets within Europe, under a formal collaboration agreement
2. To provide a system for establishing and recording butterfly monitoring sites in regions currently lacking a national scheme
3. A place to promote projects that are affiliated to butterfly monitoring schemes

Good progress has been made on each of these aims.

Aim 1. Build a collation of national BMS datasets within Europe

In April 2016, the first partnership agreement for eBMS was established and formed of seven partner organisations (CEH, BCE, BMS schemes for the UK, Netherlands, Catalonia, Finland and German. In July 2017, the partnership was extended to 14 partners (BMS schemes joining for Flanders, France, Ireland, Sweden, Luxembourg, Spain – Zerynthia, Spain). Each partner provides one representative to eBMS, with responsibility to provide butterfly transect data in an agreed format and to respond to external data requests. The current representatives for each partner are:

CEH – David Roy
BCE – Chris van Swaay
UKBMS – Ian Middlebrook
Dutch BMS – Chris van Swaay
Catalonia BMS – Constanti Stefanescu
Finland BMS – Mikko Kuussaari
German BMS – Josef Settele
Flanders BMS – Dirk Maes
France BMS – Benoît Fontaine
Ireland BMS – Tomas Murray
Sweden BMS – Lars Pettersson
Luxembourg BMS – Xavier Mestdagh
Spain-Zerynthia BMS – Yeray Monasterio León
Spain BMS – Miguel Munguira

CEH's responsibilities for eBMS are to establish and maintain the partnership agreement, to handle external data requests as they arise and to undertake standard analyses as agreed by eBMS partners.

During 2017, Reto Schmuki (CEH) led the development of a database for eBMS and collated data from partners. To date, 10 countries (12 schemes) have contributed data from over 6000 monitoring sites covering a gradient of ca. 6,800 Km south-west to north-east across Europe (Figure 1).

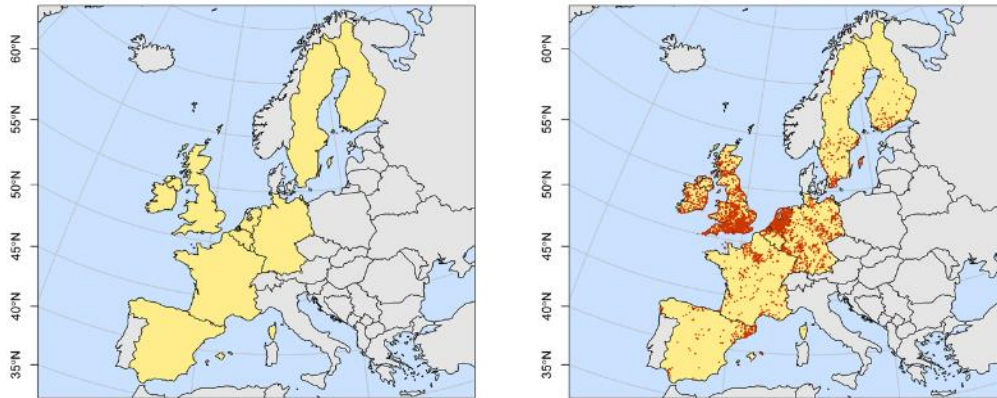


Figure 1. Butterfly Monitoring Schemes contributing to the European Butterfly Monitoring Scheme (eBMS). Left panel – participating countries shaded in yellow; Right panel – red dots represent the central location of transects held within the eBMS dataset.

The number of transects monitored each year within Europe and held within the eBMS database has grown steadily since the first transects established in the UK (Figure 2). The eBMS dataset comprises 3.88 million observations from over 640k transect walks. Priorities for 2018 include the addition of data from schemes not yet incorporated in the database and to update to data collected in 2017. Further aspirations are to standardise the collection of habitat data for transect routes and to capture GIS data for route locations where available.

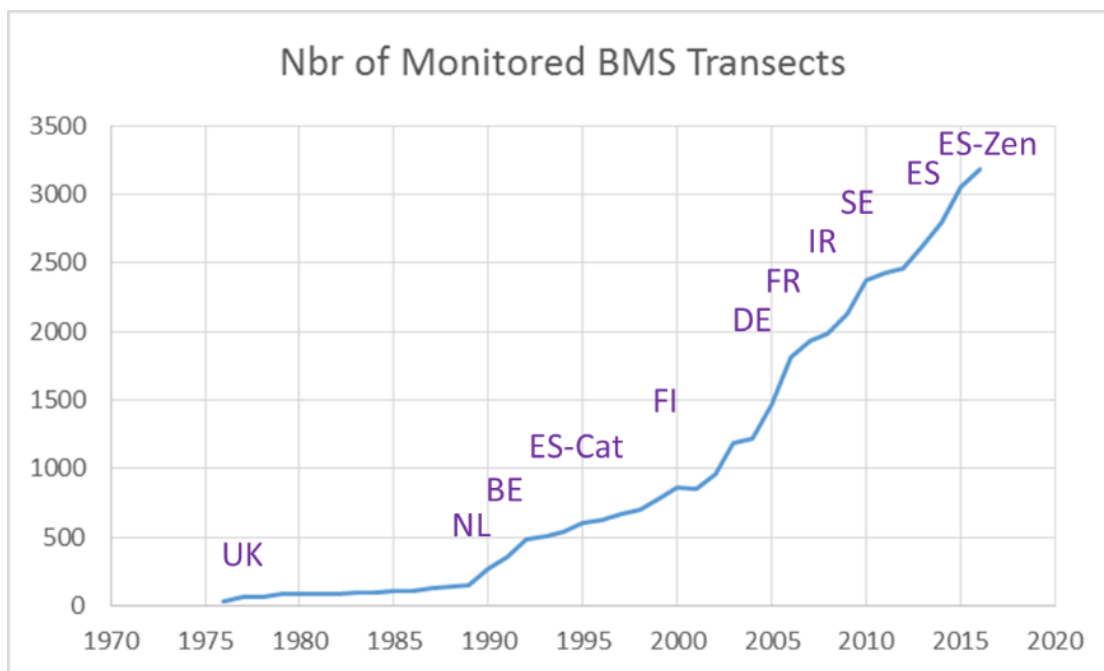


Figure 2. Butterfly Monitoring Schemes transects monitored each year in Europe. The year of establishment for each scheme is indicated by the relevant code.

Aim 2. Provide a system for establishing and recording butterfly monitoring sites in regions currently lacking a national scheme

An online capture system has been developed to support the establishment of butterfly transects in regions currently lacking a national scheme. The site has been developed using open source software and can be accessed at www.butterfly-monitoring.net/mydata. The site has been adopted by the Luxembourg BMS as the main system for capturing data for their scheme and they have invested in its development to add to the funding that CEH has contributed. Further participants are invited to trial the system. The site comprises the following main features (Figure 3):

- The ability to setup new transect sites, categorising the habitats of the site
- Online GIS to draw the transect route, categorising the habitats for each section of the route
- A calendar for adding new transect walks to edit existing walks
- Data entry forms for time of day and weather conditions of transect walks
- Data entry forms to efficiently enter counts of butterflies seen during transect walks. The site comprises a complete list of butterflies in Europe, matching Fauna Europe taxonomy
- Plots to display counts of species through the season, filterable by species, sites and years.
- Administrator role for national co-ordinators

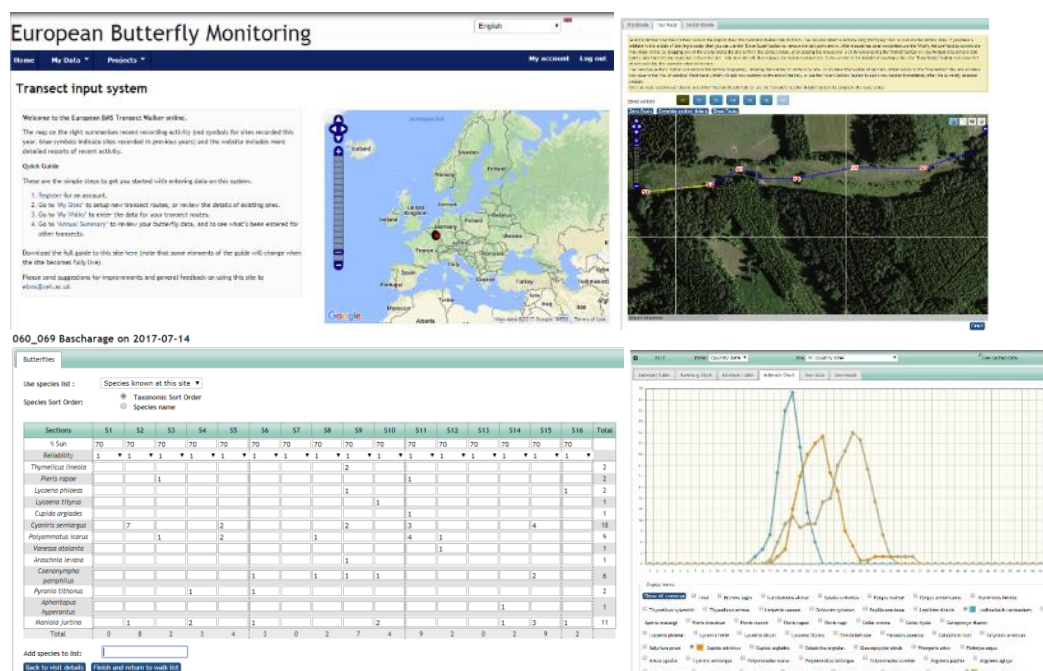


Figure 3. Example screenshots for the eBMS transect input system

Aim 3. A place to promote projects that are affiliated to butterfly monitoring schemes

To date, a single project is affiliate to the eBMS partnership. The Butterfly Genetics Monitoring Scheme (BGEMS) aims to develop a long-term genetic monitoring scheme linked with population abundance data collected through BMS transects. See their project page for more details:

<http://www.butterfly-monitoring.net/project/butterfly-genetics-monitoring-scheme-bgems-2020-pilot-study>

Mobilising European butterfly data

By Chris van Swaay, Dutch Butterfly Conservation

Information on the distribution of butterflies is a vital part of the knowledge we need to conserve butterflies, next to data on their population trends and effective conservation measures. So far the collection of distribution data has been mainly focused on the publication of national or regional distribution atlases. Many countries now have such atlases, but the underlying data is often stored in local databases. Since the first publication of the European Distribution Atlas (Kudrna, 2002) European maps have become available, which have been used to build climate envelopes and estimate the effects of future climate change (Settele et al., 2008). Updated maps on a European scale are available in Kudrna et al. (2015) as well as online via <http://www.ufz.de/european-butterflies/index.php?de=22477>.

Effective butterfly conservation needs up-to-date records, preferably at detailed resolution, and easily available online as open data that can be used for research and conservation. Such data are best collected via online databases (preferably with mobile apps) or dedicated citizen science projects. In some countries, participation can be very large as in the UK, where the Big Butterfly Count (attracted over 50,000 participants and over 50,000 counts in 2017 and in the Netherlands on average 400,000 records are collected per year).

In contrast, in many countries such as those in Eastern and Southern Europe, the number of volunteers is far lower and there is no central system for collecting records. As these areas are among the richest for butterflies in Europe, the most important areas for butterflies are relatively poorly known. However, such areas are very popular with butterfly enthusiasts from NW Europe to go to on holiday, where part of the time is investigated in looking for butterflies. Up to now most such holiday observations never get submitted to central databases. Some may get submitted to national database in the recorders own country, or in one of the more European- or world- wide databases such as observado.org or iNaturalist.org. Only in rare occasions such observations are transferred to the national partners of BC Europe to be used for local or national butterfly conservation.

BC Europe sees it as one of its main objectives to make distribution data open data, and wants to use GBIF as a platform to realise this. This subject was a major focus of our last Partner meeting and we made good progress discussing the issues and agreeing the best way forward (see above summary and details on the BC Europe website).

False Ringlet concerns in Slovenia

By Rudi Verovnik, DPOMS

In July 2015 the Society for the Conservation and Study of Lepidoptera in Slovenia (DPOMS) sent a formal complaint to the European Commission concerning the failure to comply with Community Law regarding the drastic population decline of the endangered butterfly False Ringlet (*Coenonympha oedippus*) in central Slovenia and the failure to protect Natura 2000 sites. After almost three years we received a communication from the Commission that our complaint was joined with the complaint of Birdlife Slovenia regarding loss of grassland birds in Natura 2000 sites in central Slovenia, and that an EU Pilot (informal exchange of information between Commission and Slovenia that will allow assessment of potential violation of EU laws) was sent to our government. Within 20 weeks we should be informed about the conclusions of the Commission. We hope that these will prompt rapid restoration of the grassland habitats of threatened birds and butterflies in Natura 2000 sites in central Slovenia.



False Ringlet *Coenonympha oedippus* (Photo: Rudi Verovnik)

European Butterflies Group



By Mike Prentice, Vice Chair Butterfly Conservation's European Butterflies Group

The European Butterflies Group is a branch of UK's Butterfly Conservation and has more than 450 members across Europe. In 2017 celebrated its 10th anniversary.

We have worked with a number of local partners in many countries of Europe doing surveys for rare and endangered species of butterfly, working closely with Butterfly Conservation Europe and its partners. In 2017 we continued to give financial support for the work in Romania on *Colias myrmidone* one of Europe's most endangered species. We also sent an expedition to search for *C. myrmidone* in Bulgaria where suitable habitat and larval foodplant exists but unfortunately no evidence of *myrmidone* was found. However the butterfly was found in Belarus and further surveys will be undertaken in 2018.

Another focus for 2017 was in Greece where we worked with Lazaros Pamperis to encourage butterfly recording and monitoring particularly in National Parks. A preliminary survey for *Pseudochazara orestes* was undertaken and further surveys are planned for 2018 and 2019. The website <http://www.european-butterflies.org.uk> is a very useful source of information on European butterflies with links to most European butterfly websites. There are species lists/recording forms for many European countries and downloadable guides as to where to find butterflies. For France there are regional guides. Anyone who enjoys seeing butterflies on holiday will find the EIG newsletters a mine of information with trip reports and updates on taxonomy. Copies of the Newsletters are available on the website.

Social media

Social media are becoming more and more important to communicate with our fellow Europeans. BCE continues to be active on Facebook (www.facebook.com/ButterflyConservationEurope) and in 2016 the number of 'Likes' almost grew from 2,226 to 2,530 on 31 December 2017. Our Twitter following has also grown from 1,230 to 1,550. We are very grateful to Chris van Swaay, Dirk Maes, Sophie Lake and Sue Collins for running these accounts.

BC Europe Priorities for 2018

- Continue to support and expand the BC Europe network, especially providing support for butterfly monitoring in countries with no schemes, or fledgling schemes.
- Work with colleagues in the European Habitats Forum to help implement the EU Biodiversity Strategy, including improving implementation of the EU Habitats Directive, influence EU policies, especially reform of the Common Agricultural Policy (CAP), and promote HNV farming and the role of butterflies as indicators.
- Develop the European Butterfly Monitoring Scheme (eBMS) with CEH and apply for funding from the EU.
- Continue to press the EU for regular funding to produce a suite of butterfly indicators.
- Input into the EU Biogeographical Zone process, especially those covering the Alps and Mediterranean.
- Mobilise European records of butterflies to GBIF, so that they become available for research and conservation on a European, national and local level.

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.

