Butterfly Conservation Europe Activity report 2018

Butterfly
CONSERVATION EUROPE

Butterfly Conservation Europe
Activity Report 2018

Butterfly
CONSERVATION EUROPE

Butterfly Conservation Europe
Activity Report 2018

BCE on 31 December 2018

Board: Chris van Swaay (chair), Paul Kirkland (secretary), Martin Wiemers (treasurer), Miguel López Munguira, Rudi Verovnik, Martina Šašić and Lars Pettersson.
European Policy Advisor: Sue Collins
Head of Development: Martin Warren
Advisors to the board: Irma Wynhoff, Josef Settele, and Dirk Maes

Production

Butterfly Conservation Europe, www.bc-europe.eu
P.O. Box 506, NL-6700 AM Wageningen, Netherlands

Preferred citation

Van Swaay, C.A.M., Kirkland, P., Wiemers, M., Munguira, M., Verovnik, R., Šašic, M., Pettersson, L.B, Ellis, S., Bonelli, S., Collins, S., Wynhoff, I., Settele, J., Maes, D. & Warren, M.S. (2018). Butterfly Conservation Europe. Activity Report 2018. Report VS2019.014, Butterfly Conservation Europe & De Vlinderstichting/Dutch Butterfly Conservation, Wageningen.

April 2019

BCE board and advisors, Brussels (B), March 2010. From left to right: Dirk Maes, Simona Bonelli, Sam Ellis, Sue Collins, Martin Warren, Martin Wiemers, Cristina Sevilleja, Rudi Verovnik, Irma Wynhoff, Miguel Munguira, Martina Šašic, Chris van Swaay.

Contents

Introduction

By Chris van Swaay, Chair, BC Europe

A warm welcome to our annual report on the activities of BC Europe for 2018.

The main development during the year has been the award of a major new contract from the EU to expand our butterfly monitoring work in Europe. The contract is the result of many years of effort by our Policy Advisor, Sue Collins, with the help of many partners. We are very grateful for all their hard work. The ABLE project (Assessing ButterfLies in Europe) will galvanise our efforts to monitor butterflies across the continent and we are also grateful for the support of the EU and several MEPs, especially Dr Pavel Poc from the Czech Republic. Numerous papers have recently highlighted the decline of insects and pollinators, so there has never been a more important time to be involved in butterfly monitoring. I hope as many of our partners as possible can become involved. Further details are given below.

The Board met twice during the year: at Southampton in April before the BC (UK) conference and on Madeira in September, where we also went into the field to help survey the endemic Madeiran Speckled Wood *Pararge xiphia*. I would like to thank all the BCE Board members and advisors for their hard work and support during the year. Our work will grow rapidly due to the ABLE project, but we are pleased to have the opportunity to provide better data on butterfly trends and help improve European environment policies for insects.

BCE advisor Dirk Maes in the Laurasilva forest on Madeira after the BCE board meeting.

ABLE project

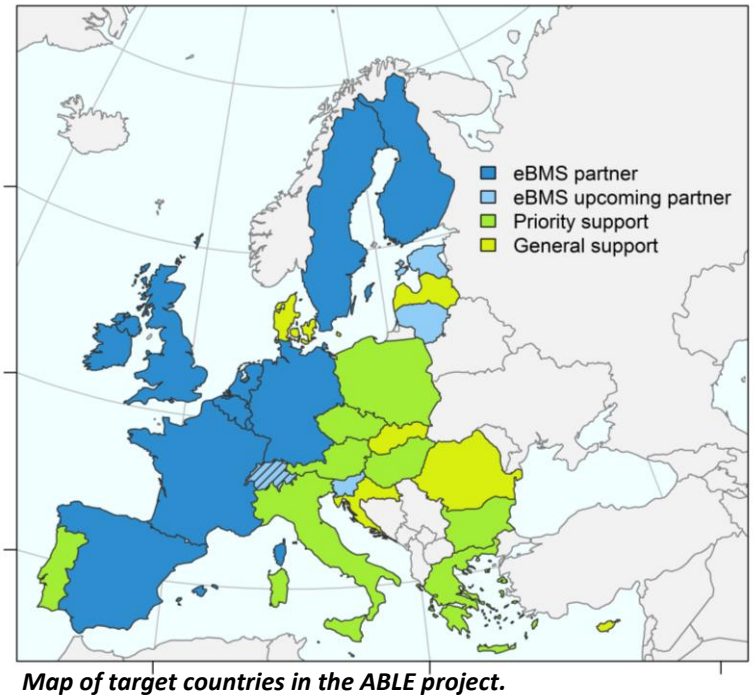
By Martin Warren, Head of Development, and Sue Collins, Policy Advisor, BC Europe

Our dream of a major project to develop butterfly monitoring across Europe was realised this year by the award late in November of a two-year contract with the EU, Environment Directorate. The lead partners are BC Europe, the Centre for Ecology and Hydrology (UK), Dutch BC, BC (UK), and UFZ (Germany). Many BCE Partners are also involved or soon will be.

The overall aims of the project are:

1) To develop a suite of butterfly indicators to contribute to the improvement of the targeting and efficiency of conservation measures and inform the biodiversity impact of European sectoral and land use policies (eg CAP).
2) To develop a unified, sustainable and cost-effective European Butterfly Monitoring Network based on trained volunteer recorders, central co-ordinators, and access to a central online data entry system.
3) To construct a unified, high quality database and automated data entry system, together with new methodologies for calculating trends and a range of indices

This is a really exciting opportunity both to expand butterfly monitoring to more parts of Europe and to provide a range of benefits to existing schemes (partners in eBMS). The BCE team would like to thank the many partners who provided letters of support for the bid and look forward to working with BCE partners to implement the project and help us develop the monitoring network across Europe.



Map of target countries in the ABLE project.

We are delighted that Cristina Sevilleja has been appointed as Network Co-ordinator to help develop monitoring in countries without schemes as well as supporting others (see map). As the project is financed by the EU, our priority has to be focussed in EU countries, but all countries should benefit from the tools and training materials we provide in the project. Please get in contact with Cristina if you want to get involved. She can be contacted at cristina.sevilleja@vlindertichting.nl

Influencing European policies

By Sue Collins, European Environment Policy Advisor, BC Europe

1. BCE responded to 3 EU Consultations at the end of 2017. These covered the **EU LIFE Programme, Invasive Alien Species Delegated Acts and the EU Review of the Sustainable Use of Pesticides Directive**, (the latter in consultation with the Pesticides Action Network, PAN).
2. BCE, in commenting on the draft Road Map for an **EU Pollinators Initiative**, highlighted the importance of Pollinators, including moths; the need to safeguard and restore their habitats, especially semi natural grasslands; and the need for field monitoring. Together with Buglife and other colleagues in the European Habitats Forum (EHF), BCE prepared 2 papers for the EU Public Consultation on Pollinators. These covered drivers of declines and possible interventions to improve Pollinator status. We also participated in a 2 day Pollinators Workshop in Brussels with experts where we had detailed discussions of these and other issues, especially the effect of pesticides.
3. The EU Pollinators Initiative was published in June 2018. This will increase knowledge, address causes of pollinator declines and raise awareness. Potentially important developments include the possible extension of the European Food and Environment Safety Assessment (EFSA) Guidelines on risk assessment to include the impacts of pesticides on wild pollinators and to develop a pollinator monitoring protocol for inclusion in the monitoring regime for CAP beyond 2020. BCE has encouraged EU Members States to fully implement the Initiative.
4. BCE has continued to advocate the use of the **EU Grassland Butterfly Indicator** as a proxy measure for the evaluation of EU Agriculture policy implementation at EU, national and regional levels, in safeguarding, restoring and sustainably managing semi natural grassland.

Wet hay-meadows are important grassland for butterflies and many other species, e.g. orchids.

5. I have continued to act as **Vice Chair of the European Habitats Forum (EHF)** of NGO networks and have represented EHF at informal meetings of **EU Nature Directors** and meetings of the **EU Coordinating Group on Biodiversity and Nature (CGBN)**, which brings together EU Member States, the EU Presidency and EU Commission, EEA and Stakeholders. In particular, I have highlighted the EU Auditors' Report which concluded that the Greening measures of the CAP 2013 had so far been largely ineffective in supporting biodiversity or its recovery in farmed areas.
6. I have been active in promoting an **ecological reform of the CAP**; increases in funding of biodiversity recovery; full implementation of the EU Biodiversity Strategy, the EU Nature Action Plan and the EU Habitats Directive; and increasing support for monitoring of butterflies and tracking of EU delivery and spending on biodiversity. I have also worked with EHF colleagues to help develop proposals for effective **Biodiversity Strategies to 2030 at global and EU levels.**
7. **Policy related Presentations** given include 'Can Farmers help restore butterflies, moths and other pollinators?' delivered to the BC International Butterfly Congress in Southampton in April 2018. And 'Agriculture and butterflies – the impacts of intensification, abandonment and extensive farming', delivered on behalf of BCE to the EU Nature Directors meeting in Austria in September 2018.
8. The EU Commission's proposals for a **new Architecture for the CAP** were published in late 2018. These envisage a results oriented approach and a more specific contribution by the agriculture sector to the delivery of EU environmental priorities, including biodiversity; but it also envisages budget constraints. EU Member States will develop CAP Strategic Plans, covering all CAP spending and based on their assessment of needs. Sue participated in the EU Round Table meeting, with a wide range of EU policy makers and stakeholders, on the Green Architecture of the CAP, in December 2018. This explored how best to deliver the EU's enhanced ambitions for biodiversity and the climate.
9. **Policy related Presentations** given include 'Can Farmers help restore butterflies, moths and other pollinators?' delivered to the BC International Butterfly Congress in Southampton in April 2018. And 'Agriculture and butterflies – the impacts of intensification, abandonment and extensive farming', delivered on behalf of BCE to the EU Nature Directors meeting in Austria in September 2018.
10. I have continued as a Member of the EKLIPSE Strategic Advisory Board which aims to improve the links between science, policy and society.

Mobilising European butterfly data

By Chris van Swaay, Chair, BC Europe

Information on the distribution of butterflies is vital for their conservation, hence sharing and combining datasets is of great importance. This project was aimed at mobilizing butterfly records for Global Biodiversity Information Facility (GBIF) and exploring why GBIF is not used more often as medium for sharing data. It was funded by the Netherlands Biodiversity Information Facility (NLBIF). The project had two stages, first to discover which data are available and why it has not yet been shared; and second to collect as many datasets as possible and share them through GBIF.

We held an international workshop in Laufen, Germany, to assess which data might be available, and what objections there are against sharing data with GBIF. We discovered that many datasets are available, but many people are reluctant to share them. The three largest objections are:

1) Most researchers do not consider the GBIF data to be of sufficient quality for scientific studies. Tools to select only valid observations are not available or do not work with GBIF data. Researchers therefore do not often use GBIF data, and as uploading data is rather time consuming, it is often considered not worthwhile. To address this issue we developed an algorithm that allows for quick validation of data about to be published, or validation of the data already available in GBIF. We hope that such a tool will help scientists to easily improve the quality of the data available in GBIF, making it a more interesting data source for them, which would make it more logical for them to contribute their own data.
2) GBIF offers limited options to keep data under embargo. Ecological data, especially of rare and protected species that depend on fragile ecosystems should not be publically published. This may be mitigated by creating a tool that allows for easy resampling to a broader spatial scale, to ensure fragile populations remain undisturbed.
3) Many researchers dislike sharing data, as data is knowledge and hence power. Sharing data can allow other researchers to misinterpret data or use it without giving proper credit. There is little GBIF can do to address this issue, except ensuring licensing information is abundantly clear and data users know that although the data are freely available, they have to cite its source properly.

For the second stage of this project, mobilizing butterfly records and sharing them with GBIF, we collected 137,550 butterfly observations. After validation 129,499 of these were made publically available through GBIF. This is a high quality dataset that will be an important data source for calculating future butterfly trends. We have prepared a manuscript to be published as a paper accompanying these data.

GBIF will become more important for sharing butterfly data if the obstacles identified in this report are addressed, we expect that further development of electronic tools can improve this process and make data usage and sharing easier.

Training Nature Hosts in Turkey

By Martin Warren, Head of Development, BC Europe

Working through our Turkish Partner, Doga Koruma Merkezi (DKM) and Butterfly Conservation (UK), over 20 students have been trained to be 'Nature Hosts' at the Middle Eastern Technical University in Ankara. They are now holding events to show children in Ankara the wonders of Nature as well its importance to the health of our planet. The Nature, Youth and City project is funded by the EU Erasmus programme BC(UK) and involves partners from Anima Mundi in Italy and Thessaly University in Greece.

As part of the project, students were trained to teach about butterfly life cycles and various fun classroom activities. One involved an innovative game called "bat and moth", where a "moth" person is chased by a blindfolded "bat" person in a ring of onlookers. The bat can clap its hands and the moth has to respond, also by clapping, enabling them to home in. Infrequent claps allow the moth to duck out of the way, but a quick succession of clapping usually leads to the catching of the moth! Just like in real life (but with sonic clicks). A fun game for both children and adults! They were also taught about running moth traps and citizen science projects, both of which they use in working with children.

Students from Ankara University playing a "Bat and Moth" game at BC (UK) headquarters in August. (Photo: Martin Warren).

The project also involved the production of a series of booklets on nature activities as well as on the wildlife of the large (4,500 ha) campus that surrounds the University. This contains important steppe grassland and wetland habitats as well as planted woodland. The Campus is also home to the only large known colony of the Steppe Fritillary *Euphydryas orientalis* which has become the emblem of the project. The project has raised awareness of the importance of the site for this and other specialised wildlife, which will hopefully lead to more secure conservation.

The Steppe Fritillary *Euphydryas orientalis* is a highly threatened butterfly that is found on the Campus at Ankara University. We are working with our partners in DKM and the University to help conserve its steppe grassland habitat. (Photo by Hilary Welch).

Integrating national Red Lists for prioritising conservation actions for European butterflies

Red Lists are very valuable tools in nature conservation at global, continental and (sub-)national scales. In an attempt to prioritise conservation actions for European butterflies, we compiled a database with species lists and Red Lists of all European countries, including the Macaronesian archipelagos (Azores, Madeira and Canary Islands). In total, we compiled national species lists for 42 countries and national Red Lists for 34 of these. The most species-rich countries in Europe are Italy, Russia and France with more than 250 species each. Endemic species are mainly found on the Macaronesian archipelagos and on the Mediterranean islands. By attributing numerical values proportionate to the threat statuses in the different national Red List categories, we calculated a mean Red List value for every country (cRLV) and a weighted Red List value for every species (wsRLV) using the square root of the country's area as a weighting factor. Countries with the highest cRLV were industrialised (NW) European countries such as the Netherlands, Belgium, the Czech Republic and Denmark, whereas large Mediterranean countries such as Spain and Italy had the lowest cRLV. Species for which a Red List assessment was available in at least two European countries and with a relatively high wsRLV (≥ 50) are *Colias myrmidone, Pseudochazara orestes, Tomares nogelii, Colias chrysotheme* and *Coenonympha oedippus*. We compared these wsRLVs with the species statuses on the European Red List to identify possible mismatches. We discuss how this complementary method can help to prioritise butterfly conservation on the continental and/or the (sub-)national scale.

https://link.springer.com/article/10.1007/s10841-019-00127-z

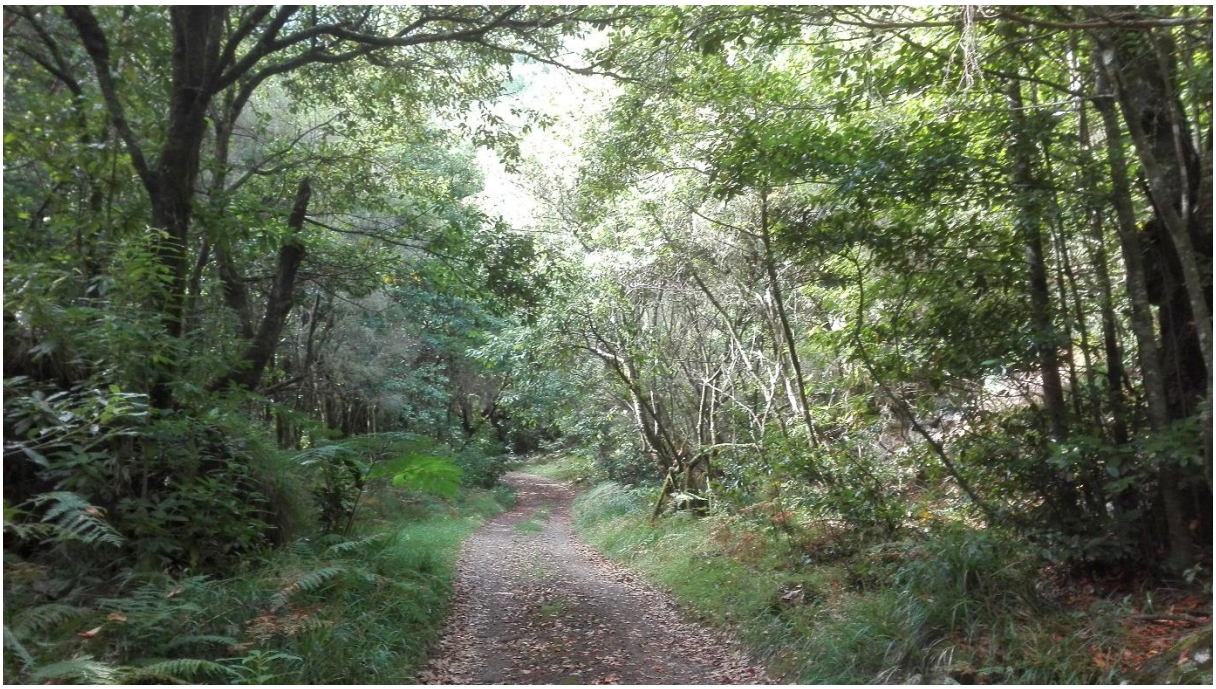
Colias chrysotheme*, one of Europe's endangered butterflies (photo: Rudi Vervovnik)*

Endemic butterflies of Madeira: threats and opportunities

By Martin Warren, Head of Development, BC Europe and Martin Wiemers, UFZ, Germany

In September the BCE Board met on Madeira and conducted a survey of the endemic Madeiran Speckled Wood *Pararge xiphia*. The following is a summary of the blog written for the BCE website http://www.bc-europe.eu/index.php?id=498

Madeira is a small isolated island in the Atlantic that lies 520km west of and around 400km north of the Canary Islands. This extreme isolation means that only a few animal species have colonised and only sixteen butterfly species are regularly seen there. However, three of these are endemic to the island and two of them are classed as Endangered in the European Red Data Book: *Pararge xiphia* (the Madeiran Speckled Wood) and *Gonepteryx maderensis* (the Madeiran Brimstone). Madeira has the dubious honour of being the place where the only known butterfly extinction has occurred in Europe: *Pieris wollastoni* (Madeiran Large White) has not been seen since 1986.



Laurisilva forest, habitat of both G. maderensis and P. xiphia (photo: Martin Wiemers)

P. aegeria colonised Madeira in around 1967 and has since become abundant and widespread throughout the island. Since that time, *P. xiphia* has contracted its range, disappearing from lower altitudes and becoming more and more confined to the native Laurel Forest known as Laurisilva Forest. One theory about its contraction is that there may be some disturbance of adults by the invading *P. aegeria*, but nobody knows how strong the effect has been.

During our visit we surveyed many parts of the island, typically walking along one of the Levada routes. We found numerous locations for the Endangered *P. xiphia*, mainly in the remaining Laurisilva areas in the centre and north of the island. We also found that *P. aegeria* was more widespread, occurring at almost every location we visited. It was more abundant than *P. xiphia* apart

from a few undisturbed areas of Laurisilva where the latter dominated. We also recorded a few individuals of the Endangered *G. maderensis*, which does indeed seem to be extremely rare now. The other endemic (but not threatened) butterfly, *Hipparchia maderensis* (Madeiran Grayling) was at the end of its flight period but we found numerous worn specimens at higher altitudes.

Pararge xiphia*, an Endangered endemic of Madeira (photo: Martin Wiemers)*

We think that a butterfly monitoring programme on Madeira is of utmost importance to investigate population trends of its endemic butterflies and to better understand the influence of invasive species such as *Pararge aegeria*. Our local partner, Sérgio Teixera has already started such a scheme which also includes tourist groups, but this scheme is only working on a low level and needs further support. Another positive outcome of the visit is that we decided to start a project to boost numbers of the hostplant of *G. maderensis*, namely *Rhamnus glandulosa*. This plant has become quite rare on the island following decades of forest destruction and wildfires, with likely less than 5000 individuals remaining. So it seems an obvious and easy conservation measure to take. There are already several projects aimed at reforesting the island after the fires, so it should be possible to include *Rhamnus* within these programmes.

Gonepteryx maderensis, *an Endangered endemic of Madeira (photo: Martin Warren)*

European Butterflies Group

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

Membership of European Butterflies Group continues to grow and EBG now has over 650 members. We have an ambition to open up membership to non-UK residents but this is not currently possible.

During 2019 we gave further support to the project on *Colias myrmidone* in Romania and made a financial contribution to the work which unlocked further funding from the German Federal Environment Agency. There is to be a workshop in Romania in May 2019 at which EBG will be represented. We continue to research further localities for *C myrmidone* having found extensive colonies in Belarus but none in Bulgaria.

Euchloe bazae *at Los Monegros in Spain*

In both 2018 and 2019 a small group of volunteers visited the Los Monegros area of northern Spain to survey for the northern population of *Euchloe bazae*. The range of this species in the north is very restricted and the volunteers spent time searching for the larval foodplant *Boleum asperum* which also has a restricted range.

Each year we offer one or two research bursaries particularly, but not exclusively, aimed at younger people and in 2018 the recipient (a student from Exeter University) spent several weeks in Hungary assisting with a mark and recapture programme on *Phengaris* species.

We have publicised to our members the LIFE/Species Action Plan on *Parnassius apollo* being run by the Greek Environment Ministry which is seeking current and past records of sightings in Greece.

We have arranged and funded an update to the book "Butterflies of the Iberian Peninsula" by Paul Browning which will be available as a CD (and perhaps in future as a download).

Our Annual General Meeting and Members' day was held in Birmingham in December and Chris van Swaay and Irma Wynhoff from de Vlinderstichting gave interesting and informative talks which were well-received by our members.

After 12 years as Chairman Dr Simon Spencer has stepped down from the role and been succeeded by Mike Prentice.

Priority Action Plan

At the September meeting, the BCE Board approved a Priority Action Plan that will guide our work over the next 5 years. The six priorities highlighted for development are:

1. Partners: Sustain and develop an effective network of partners across Europe and make links with those working for Lepidoptera beyond Europe.

2. Advocacy: Advocate better European policies for Lepidoptera and to create a healthier environment.

3. Data: Create an eBMS covering the whole of Europe and an effective database on Lepidoptera distributions.

4. Species: Take practical action to conserve both threatened and widespread species.

5. Awareness: Raise awareness of Lepidoptera and their role in creating a healthy ecosystem.

6. Capacity: Increase BCE capacity to raise funds and run projects.

We will now be seeking funds to achieve these priorities and look forward to working with our Network Partners to achieve them.

Social media

Our social media following continues to grow steadily: our Facebook page now has over 2,600 followers (www.facebook.com/ButterflyConservationEurope) and our Twitter account has grown to over 1,600 followers. We are very grateful to Martin Warren, Cristina Sevilleja, Chris van Swaay, Dirk Maes, 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.