

Achievement Report Butterfly
Conservation Europe 2010



Butterfly
CONSERVATION EUROPE

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Photo: Chris van Swaay



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1. Main objectives:

- 1) Enhance an effective and representative network of partners working to conserve Lepidoptera across Europe, including development work in Eastern European countries.
- 2) Raise awareness of the importance of biodiversity and the state of butterflies and moths in Europe.
- 3) Influence EU policy development and implementation through providing sound analysis and scientific advice about the links between Lepidoptera, land use and management, and more sustainable economic and sectoral policies.
- 4) Help secure compliance with EU nature legislation.
- 5) Use Lepidoptera as a flagship group of insects to assess progress towards the EU target of halting biodiversity loss by 2010 and to set an ambitious target for 2020.
- 6) Secure better protection of High Nature Value (HNV) farmland and make links to published data on Prime Butterfly Areas (see BC-Europe website for details).
- 7) Help evaluate the effectiveness of EU agricultural policies through promotion of the European Grassland Butterfly Index (see report on BC Europe website)
- 8) Underpin conservation action and monitoring of biodiversity change (e.g. climate change, land use policies etc) by developing a comprehensive system for recording Lepidoptera distribution across Europe.
- 9) Encourage wider public participation in recording and monitoring through popular citizen science projects.
- 10) Spread knowledge on the status and trends of European Lepidoptera in 2010 and best practice in conservation and climate change mitigation.
- 11) Promote knowledge of the likely effect of climate change on biodiversity and the role of ecosystem conservation in adaptation and mitigation to climate change.
- 12) Help influence policy and priority setting through publication of a Red List of European butterflies with IUCN.

2. Main actions and means involved:

- 1) Appoint a Network Co-ordinator to run training events and provide advice to build capacity in eastern European countries. Identify priorities for action and best way of working with Partners and begin organising a second meeting of Network Partners for early in 2011 to share experience and best practice.
- 2) Support Partners by maintaining e-contact and producing a regular newsletter, sharing information via the BC Europe website, send email questionnaires and visit 5 countries.
- 3) Employ an Information Officer to add information to the BC Europe website (www.bc-europe.eu), especially on Network Partners, projects, and downloadable pdfs.

- 4) Employ a Director of Policy to work with the BCE Board and other NGOs to influence EU policy development and implementation, drawing on the knowledge, science, research and expertise within BC Europe Partners.
- 5) Collaborate with the European Habitats Forum to achieve coherent, effective and evidence based advice from the EU NGO network to support EU policy development and implementation. Attend relevant DG Environment meetings and respond to relevant policy consultations.
- 6) Be an active partner in Countdown 2010 to raise institutional, business and policy awareness and secure commitments to action to halt biodiversity loss and enable recovery beyond 2010.
- 7) Provide advice to Network Partners on compliance with EU nature legislation and use of Lepidoptera as indicators towards the 2010 target.
- 8) Collect additional information from MS for detailed maps on national PBAs and support the EEA in implementing these in the HNV farmland areas.
- 9) Develop an online system for recording Lepidoptera and create a pan-European database.
- 10) Collate information on community assemblages from all European Butterfly Monitoring Schemes to build a robust European Butterfly Climate Change Indicator.
- 11) Encourage partners to promote online recording and run citizen science recording projects in at least four countries (UK, France, Netherlands and Portugal).
- 12) Analyse data from Network Partners and produce a new Red List for publication on the IUCN website. Produce summary report with IUCN.
- 13) Organise an International Symposium at Reading University (UK) from 26-28 March 2010 and publish proceedings as a book and special issue of Journal of Insect Conservation.
- 14) Participate in the International Year of Biodiversity and link press releases to this initiative.
- 15) Progress will be assessed continually by the BC Europe Board and discussed at two meetings. Produce final report on progress against these activities and expected results.

3. Expected results and outputs:

- 1) An increasingly effective Network of specialist groups established across Europe that can help take practical action to conserve Lepidoptera and contribute to Butterfly Conservation Europe.
- 2) A clear set of priorities for Butterfly Conservation Europe and increased capacity of its East European Network partners.
- 3) Improved availability of information on the conservation of Lepidoptera across Europe via an improved website with information on BC Europe, its projects and documents.
- 4) Improved EU policy development and implementation, linking biodiversity, land use, well functioning and resilient ecosystems, ecosystem services and sectoral policy reform.
- 5) Better appreciation by DG Agriculture and EU farmers of the importance of ecosystem services and their dependence on biodiversity, and the importance of HNV areas for conserving biodiversity, including butterflies and moths.
- 6) An online system for recording European Lepidoptera which will allow wide participation and citizen science projects within every country.

- 7) A robust European Butterfly Climate Change Indicator to complement the Bird Climate Change Indicator and raise awareness of the links between biodiversity and climate change adaptation and mitigation.
- 8) A new Red List of European butterflies with an up-to-date assessment of priorities, species status, trends, threats and conservation action.
- 9) The development of popular citizen science projects in at least three countries, which can be used as models for other countries.
- 10) Up to date assessments of Lepidoptera trends and whether the 2010 target has been met for this indicator group in Europe. Best practice in practical conservation shared and publicised. Papers from Symposium published as book and special issue of Journal of Insect Conservation.
- 11) Greater awareness of biodiversity, the need for its conservation and the link with ecosystem services.
- 12) Progress report and final results assessed by Board.

4. Resource allocation and cost-effectiveness:

Resources will be allocated as follows:

- 70% towards the part-time employment of a Network Co-ordinator and Information Officer (to deliver Objectives 1,2,8,10,11 and support others) and a Policy Director (to deliver Objectives 3-7 and support others).
- 30% to the placing of a contract with an experienced consultant to develop the online recording system and produce the climate indicator (to deliver Objectives 8-10)
- The remainder of the work programme will be delivered by the BC Europe Board and Network Partners as in kind contributions (especially Objectives 10-12).

Chapter 1 / Introduction

Welcome to this final report of BC Europe's activities and achievements for the year 2010. The year has been a pivotal one for our relatively new organisation because we were awarded our first core funding grant from the EU, which has enabled us to employ staff for the first time. Our priorities have been to develop our network of partners across Europe, to act as a hub for information about butterflies and moths, to develop pan European butterfly indicators and to improve European policies on land use and biodiversity.

During the year, we employed three part-time staff who conducted different roles: Svetlana Miteva who acted as Network Co-ordinator, Irma Wynhoff as Information Officer and Sue Collins as Policy Director. We are extremely grateful for their hard work during the year which is summarised in this report. We are also extremely grateful for our colleagues who served on the Board of BC Europe and our several advisors who help us in specialist areas.

Our network now comprises 45 organisations from 42 different countries. We were able to make full use of their immense expertise to compile a new Red List of European butterflies. This showed that one-thirds of all species are declining and 10% are threatened. We also updated the Grassland Butterfly Indicator, which showed that characteristic grassland species have declined by over 70% in the last 15 years. Together, these results highlight the crisis facing European butterflies and the need for more concerted action on this flagship group. As butterflies are good indicators of other insects, which comprise two-thirds of the world's species, measures to help them will be a major contribution towards conserving Europe's rich wildlife heritage.

We have ambitious plans for the future and are planning our next meeting of Network Partners in November 2011. BC Europe hopes to use this as a platform for further growth and action on butterflies and moths.

Josef Settele & Martin Warren

Chapter 2 / Work programme activities in each policy area

1. CLIMATE CHANGE

1.1 CLIMATE CHANGE – EU policy formulation

Objectives:

- Influence the EU debate around Climate Change mitigation and adaptation, improving understanding that the climate crisis cannot be solved without addressing the biodiversity crisis, and that co-benefits can be achieved.
- Promote knowledge of the likely effect of climate change on biodiversity and the role of ecosystem conservation in adaptation and mitigation to climate change.

Activities:

- 1) Provide advice on climate change adaptation and ecosystem contribution to mitigation to EU Commission and other relevant fora, directly and through the European Habitats Forum, based on evidence about the predicted impacts of climate change on butterflies and moths and their habitats.
- 2) Collate information on community assemblages from all European Butterfly Monitoring Schemes to build a robust European Butterfly Climate Change Indicator.
- 3) Highlight the sensitivity of butterflies and moths, their value as an indicator and the land use policies e.g. to increase ecological connectivity, which are essential to their recovery.

Expected results and outputs:

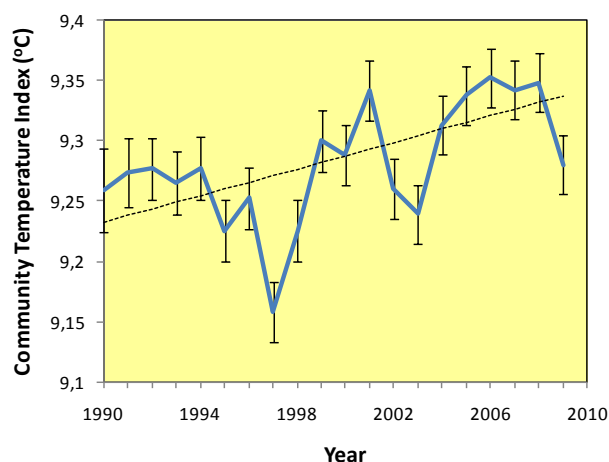
- EU policies on climate change mitigation and adaptation are more effective, and there is increased ecosystem resilience and reduced risks to biodiversity.
- A robust European Butterfly Climate Change Indicator to compare with the Bird Climate Change Indicator.

Results:

- 1) The BCE Policy Director has continued to follow by email the debate in the EU Ad Hoc Expert Working Group on Biodiversity and Climate Change. Adaptation of land use practices to increase ecological connectivity will be a key part of the solution. In December, she wrote to officials in DG Environment and DG Agriculture, attaching the BCE Second Report on the Butterfly Climate Change Indicator and drawing attention to the abstracts of 5 relevant research studies on butterflies and climate change.
- 2) BCE produced a report on the second version of the European Butterfly Climate Change Indicator, covering the period 1990-2009.
 - The indicator is based on national Butterfly Monitoring Schemes from thirteen countries from all over Europe, based on almost 4000 transects, most of them counted by trained volunteers.

The European Butterfly Climate Change Indicator.

The indicator shows a significant increase of the Community Temperature Index (CTI) of $5.5 \times 10^{-3} \text{ }^{\circ}\text{C}$ per year.



- The indicator shows the long-term effect of climate change on butterfly communities.
 - The indicator shows a significant and rapid increase in European butterfly communities becoming more and more composed of species associated with warmer temperatures.
 - Since 1990 the mean shift of communities is equivalent to a northward shift of 75 km.
 - Butterfly communities can fluctuate considerably from year to year due to annual weather conditions, but the underlying long-term trend is more likely attributable to climate change and other factors.
 - Over the same period the temporal trend of the temperature in Europe increased steeply, corresponding to a northward shift of 249 km. This indicates that butterflies are not keeping pace with climate change.
 - There seems to be a gradient over Europe, with countries in Northern and Eastern Europe showing a stronger and more positive change than countries in Southwestern Europe.
 - Conservation measures should focus on preserving large populations in large areas and encouraging mobility across the landscape. The Natura 2000 and Emerald networks are vital instruments to achieve that. In the wider countryside, agri-environment schemes could facilitate butterfly mobility and allow species to spread more easily.
 - Continuing butterfly monitoring is vital to assess future changes and expanding Butterfly Monitoring Schemes to other countries will further improve the quality of future indicators.
 - This indicator should be updated on a regular basis, so the reaction of our butterfly fauna to a changing environment can be monitored closely.
- 3) The report contains a chapter on the value of butterflies as indicators, and conservation measurement necessary to counteract the ongoing climate change. Main findings are:
- Preserve large populations in large areas
Large and diverse landscapes offering a large variety of microclimatic conditions, can support larger and more stable butterfly populations and communities for a much longer time than small areas. Nature conservation should not only protect existing areas, but also try to extend them and manage them to create large, diverse habitats with strong butterfly populations.

- Encouraging mobility across the landscape
Barriers across the landscape preventing butterflies to shift their ranges in northern direction should be removed as far as possible. The Natura 2000 network should focus on providing these connections, which should connect large and strong populations as much as possible. In the wider countryside, agri-environment schemes can create stepping stones in the landscape, as well as provide corridors. The value of some urban landscapes should also not be underestimated.
Although the European Butterfly Climate Change Indicator shows that butterflies are currently not keeping up with the changing climate, we should do all we can to create pathways that offer them the greatest chances to adapt.
- Gain time to adapt
Targeted management on the ground should offer existing populations the time to adapt and move to new areas. This should not only take place in nature reserves, but also in the wider countryside and urban areas. By doing this we buy time to make it possible for other measurements to take effect.
- Reduce the emission of greenhouse gasses
Only by a serious reduction in the emission of greenhouse gasses we can expect climate change to slow down, but that should not prevent us from doing what we can to reduce this impact.
- Research
To understand what is happening in our continent and improve adaptation strategies in the future, research is a vital instrument. Butterflies are very suitable organisms, as their distribution and ecology is generally well known. Furthermore the Climatic Risk Atlas (Settele et al., 2008) provides a framework to follow changes as a result of climate change.
- Monitoring
Butterfly monitoring is spreading over the continent, and more and more countries are developing schemes. This should be encouraged in other countries to build more robust and representative indicators. The schemes not only provide information on the effect of climate change on butterflies, but they also give direct information on biodiversity changes (e.g. the European Grassland Butterfly Indicator).
- Updating the indicator
Only by regularly updating the indicator can we follow the change of butterfly communities and the impact climate change has on our butterflies.

1.2 CLIMATE CHANGE – EU policy implementation

Objectives:

- To establish a pan European recording scheme that will provide information on Lepidoptera and their responses to climate change and to adaptive land management.
- To promote practical projects to restore ecological connectivity and support species movements, thus increasing ecosystem resilience and reducing the risk of biodiversity losses in the face of climate change.

Activities:

1. Establish and promote an online recording scheme that will enable Butterfly Conservation Europe partners and individuals to submit records on Lepidoptera for anywhere in Europe. The scheme will be linked to Google Maps to allow easy and precise location of records. All records will be dated and will enable the development of a long term data set tracking the dates of emergence of butterflies sensitive to climate change.
2. Disseminate information on Lepidoptera via the BC Europe website and via an International Symposium to be held at Reading 26-28 March 2010. This will include a special session on climate change and possible methods of mitigation, including the importance of maintaining and restoring ecological connectivity in implementing EU Agriculture, Regional and Infrastructure policies.

Expected Results:

- The establishment of an online system for recording Lepidoptera across Europe and the start of a potentially very large and important dataset. As Lepidoptera are very sensitive indicators of climate change, this will allow the objective assessment of the biological impact of climate change that can inform EU policy in this area.
- Improved policies and practices in EU Regional Development and Cohesion Programmes which help reconnect fragmented landscapes, and secure the survival of Lepidoptera.
- Less damage to important areas of High Natural Value, particularly in Eastern and Central Europe, due to improved understanding of the need to maintain connectivity to improve resilience in the face of climate change.

Results:

- 1) A website has been developed to submit butterfly observations, anywhere in Europe, including during holidays to other countries: (www.butterfly-recording.eu). This website can also be accessed via the BCE website (www.bc-europe.org). After registering as a user, observations can be submitted using simple online forms. A facility linked to Google Earth can be used to easily find locations. Records can be entered for different geographical shapes (point, line, area) and accuracies (resolution) of observation. Geographical coordinates can also be used. The recording scheme has not only been developed for butterflies but also for almost any other taxon.

www.butterfly-recording.eu
A website to enter butterfly data from all
European countries.



www.butterfly-recording.eu
A website to enter butterfly data from all
European countries.

- 2) From 26 to 28 March 2010, an International Symposium on Butterfly Conservation was held at Reading. In this conference, seven sessions were organized (see appendix). Session 1 dealt with the status of butterflies and/or moth with regard to 2010 targets in several countries in Europe, but also with the situation in America and the Neotropical region. In session 2, possible reasons for the decline of rare and common butterflies, ecological research, field experiments and conclusions and advice based on long term research were presented and discussed. In session 3, the impact of landscape characteristics on butterfly populations and conservation lessons learned from the wider scale were presented. This included also land use, such as agriculture. In the next session, attention was paid to practical work and its effects on butterfly populations. In a short session 6, monitoring and the use of the data for more citizens than just conservationists were presented. A special session on climate change followed. Finally, methods of mitigation, such as maintaining and restoring ecological connectivity and the importance of implementing EU Agriculture, Regional and Infrastructure policies followed were discussed.

Table 1: Sessions on the BC UK symposium in Reading.

The 2010 Target and beyond for Lepidoptera	
<i>6th International Symposium of Butterfly Conservation (UK) Reading, 26th-28th March 2010</i>	
Presentation	Title
Session 1	<i>2010 Assessments for Lepidoptera</i>
Session 2	<i>The Science of Conservation management</i>
Session 3	<i>Landscape Scale Conservation</i>
Session 4	<i>Practical Habitat Management</i>

Session 5	<i>The Science of Monitoring</i>
Session 6	<i>Climate Change Impacts and Adaptation</i>
Session 7	<i>Future Challenges</i>

1.3 CLIMATE CHANGE – integration into other policies

Objectives:

- To explore the implications of climate change for biodiversity policies.
- Promote the importance of linking climate change mitigation and adaptation in EU land use and agricultural policies.

Activities:

1. To bring together, in collaboration with other researchers, scientific knowledge about the relationships between butterflies, land use practices and climate change. The main mechanism will be the International Symposium at Reading 26-28 March and the subsequent book of the proceedings and special issue of Journal of Insect Conservation.
2. The results will be fed disseminated publicly through press releases and fed into European policy meetings through the Director of Policy.

Expected results and outputs:

- Better understanding by policy makers of the need to adapt biodiversity strategies and make them more effective in the face of expected climate change.
- Better integration of climate change adaptation strategies into EU agriculture policies.

Results:

1. Presentations at the Butterfly Conservation International Symposium held in Reading March 2010 reported on the links between butterfly conservation, land use and climate change. The Policy Director reflected the importance of biodiversity and ecosystem resilience and in particular the need to restore ecological connectivity at a landscape scale to climate change mitigation and adaptation in her presentation at the Symposium, as well as at the ASEAN conference on Regional cooperation in biodiversity protection in Singapore in February, where she spoke on the role of EU biodiversity policy and the case of forestry. She organised and chaired the Oxford Alumni Seminar in September, at which Dr Pam Berry, international climate researcher from the Oxford Environmental Change Institute spoke on the results of research on climate impacts on biodiversity and on how looking after ecological assets can contribute to reducing greenhouse gas emissions and support adaptation.
2. A press release on the effects of climate change on butterflies is planned for January 2011.

1.4 CLIMATE CHANGE – awareness raising/environmental education

Objectives:

- To use butterflies to inform the public about the biological impact of climate change.

Activities:

1. Organise an International Symposium at Reading 26-28 March 2010 including a session on climate change impacts and possible mitigation.

2. Issue a Press Release with quotes from Sir David Attenborough, Patron of BC Europe.
3. Publish proceedings as a book and Special issue of Journal of Insect Conservation.
4. Promote the role of climate change in changing Lepidoptera distributions and phenology via the BCE website and in publications and materials produced by BC Europe Partners.
5. Publish a report on an updated European Butterfly Climate Change Indicator to compare with the Bird Climate Change Indicator.

Expected results and outputs:

- Improved awareness that climate change is having a major impact on the natural world and that both mitigation to reduce greenhouse gas emissions and adaption of land use strategies is essential.

Results:

1. The International Symposium at Reading 26-28 March 2010 has taken place. More than 250 scientists and conservationists participated in the meeting. Session 6 was dedicated to climate change impacts and possible mitigations. See also appendix.
2. On 26 March 2010 a press release with quotes from Sir David was published by BCE.



**PRESS
RELEASE**
Embargoed until Friday
26 March, 2010

“Global butterfly loss deeply worrying” says Attenborough

Butterfly experts from around the world gather in Reading, Berkshire, today as evidence mounts that butterfly numbers are declining rapidly all around the world.

Sir David Attenborough will tell delegates attending Butterfly Conservation's Sixth International Symposium that the declines are deeply worrying.

He said: "Butterflies are sensitive indicators. They decline when habitats are destroyed and when man harms the environment. We have known about butterfly losses in Britain for over 50 years. Now there is mounting evidence that it is a global problem."

Sir David, who is President of Butterfly Conservation, added: "If butterflies are disappearing, other wildlife will be declining too. Some will be facing extinction."

The Symposium is the biggest-ever gathering of international butterfly experts. It was called to assess the success of efforts around the world in meeting the United Nation's target of halting biodiversity declines by 2010. However, the agenda reflects fears in countries throughout Europe and as far apart as Japan and the United States that there is still a long way to go to achieve this goal.

Sir David said: "Halting biodiversity loss is the coming decade's great challenge. It's on a par with getting a man on the moon in the 1960s. An increase in butterfly numbers around the world could be the first indication that we've achieved this goal. Like that first step on the moon, it would be a giant leap for mankind."

Dr Martin Warren, Chief Executive of Butterfly Conservation, said: "There is increasing evidence that the problem is a global one. We have just published a new *Red List of European Butterflies* showing that around 10% of European butterfly species are facing possible extinction."

He added: "We are getting the same message from elsewhere. Symposium delegates come from all six continents. They are all saying the same. Declines on the scale of those occurring in Britain and in Europe are happening in their part of the world too. Habitats are being destroyed; butterflies and other wildlife are in decline."

Dr Warren said that it was already apparent that the 2010 deadline for halting biodiversity loss had not been met. But he added that trying to achieve it had been important. "I think we now know the enormity of the challenge. We must make it a top priority in the coming decade."

Monitoring of butterfly numbers started in the UK in 1976 and has spread around the world. The data is increasingly vital in assessing the success and failure of efforts to halt biodiversity loss.

ENDS

3. The proceedings of the conference in Reading will be published as a Special Issue, consisting of three volumes, of the *Journal of Insect Conservation*. The presentations that will be published in the proceedings are indicated in the appendix.
4. Role of climate change on website: A document on the effect of climate change on butterflies and their habitats can be found on the website: <http://www.butterflyconservation.org/subcategory.asp?catid=9&SubCatID=150>
5. Climate change indicator: see 1.1 CLIMATE CHANGE – EU policy formulation.

1.5 CLIMATE CHANGE – international aspects

Objectives:

- To provide tools to help non EU countries such as Russia, Ukraine, Belarus, Turkey and Croatia and potential Candidate countries to study the impact of climate change in their own countries.

Activities:

1. Encourage take up of the online recording system and disseminate information to enlarge the number countries on the impact of climate change on Lepidoptera across Europe and learn from their experience.

Expected results and outputs:

- Improved information on impact of climate change on biodiversity
- Improved awareness that climate change is having a major impact on the natural world and that sustaining biodiversity value in the Western Balkans, which have some large remaining, intact ecosystems, has a key part to play in the EU and global future climate strategy.

Results:

The BCE online recording system was presented at several occasions:

- During the visit by Svetlana Miteva to Russia where she presented the online recording system at several occasions, both in Moscow and in St Petersburg.
- During the workshop in Laufen, the online recording system was presented to the Ukrainian and Croatian BC Europe partners.
- In the joint BBI Matra project of BCE and the Turkish partner DKM the online recording system has been brought forward several times. In Turkey there are already several online recording systems into place and it did not seem appropriate to introduce a new one. BCE has urged its Turkish partner to try to exchange data, so the BCE database is as up to date as possible.

Improved awareness of the impacts of climate change on biodiversity and the importance of the Western Balkans ecosystems – see results under 1.1
Climate change – EU policy formulation

2. NATURE AND BIODIVERSITY

2.1 NATURE AND BIODIVERSITY – EU policy formulation

Objectives:

- Influence EU policies that affect Lepidoptera and use experience with conserving this flagship group of insects to meet progress towards the EU target of halting biodiversity loss by 2010, and develop ambitious commitment to recovery by 2020.
- Raise the profile with politicians and the public across Europe of the importance of biodiversity, the state of butterflies and moths, the causes of their declines and the actions that can safeguard their habitats and restore populations.
- Contribute to thinking in Europe about the intrinsic value of biodiversity and its importance to the delivery of ecosystem services essential to human wellbeing.
- Promote a long term vision for biodiversity recovery, ecosystem functionality and resilience.
- Produce a new Red List of European butterflies with an assessment of threats and conservation issues and increased understanding of vulnerability of risks to biodiversity..

Activities:

1. Employ an experienced Director of Policy to work with relevant BC Europe Network partners in Member States and the BCE Board to establish sound, evidence-based policy advice and advocate it at EU level.
2. Develop, in collaboration with Planta Europa, Birdlife International and other NGOs (including European Habitats Forum) helpful policy advice for the EU Commission, EU Nature Directors and others, on biodiversity and nature policies, drawing on Butterfly Conservation Europe's specialist knowledge and expertise.
3. Hold an International Symposium at Reading 26-28 March 2010 with sessions on 2010 assessments from across Europe; the science of conservation management; practical habitat management; and landscape scale conservation.
4. Develop an online system for recording Lepidoptera across Europe and establish a pan-European database on Lepidoptera distributions to provide a basic tool to inform EU policies and their evaluation.
5. Advise on the EU Commission's final review of the EU Biodiversity Action Plan, and advocate action to be taken to address areas of concern identified, in the light of the EU commitment to halt the loss of biodiversity by 2010.
6. Articulate the importance of existing EU nature legislation, particularly the Habitats Directive and how its proper application in Member States is vital to halting the loss of biodiversity and retaining viable species populations for the future; and helps the EU to fulfil its CBD commitments.
7. Contribute to the debate about the EU Vision for Biodiversity for 2050, the new target for 2020 and the need for radical policy reform.

Expected results and outputs:

- Greater awareness among Member State Nature Directors of the key role MS need to play in supporting existing nature legislation and ensuring more concerted action to deliver the commitments in the EU Biodiversity Action Plan and to the CBD.
- The start of a potentially large and important database on Lepidoptera to inform EU policies on biodiversity, land use and climate change.

- An effective and grounded Review of the existing EU Biodiversity Action Plan and a sound foundation for its successor.
- Improved EU policies for Lepidoptera and biodiversity and a greater sense of the urgency, importance and scale of the task of meeting the target of halting the loss of biodiversity by 2010.
- An ambitious new EU Vision and target for biodiversity beyond 2010, with an emphasis on recovery, ecosystem resilience and a greener economy.

Results:

1. Sue Collins has been employed as BCE Policy Director. She has extensive experience, including as past Director of Policy at English Nature, of advising on policy reforms to benefit biodiversity and ecosystem functionality and resilience. Sue attended the EU Presidency Conference on post 2010 EU biodiversity policy in Madrid in January 2010 attended by Commission officials, Member State Nature Directors, the European Environment Agency and other stakeholders. In cooperation with other members of the European Habitats Forum (EHF), and in line with the policy paper she brokered last year for the Athens Conference, Sue argued for an ambitious long term vision for biodiversity and a recovery target for 2020. She also emphasized the need for stronger integration of biodiversity into sectoral policy to achieve such a target.

The BCE Policy Director also attended the EU Nature Directors meeting in Segovia in March and had discussions with Member State Nature Directors on the state of nature, the declines in butterflies and moths, the importance of grassland habitats, the need to do more monitoring of biodiversity and the urgency of more concerted action by EU national governments and the EU to halt biodiversity losses and start the recovery. She continued to advocate for an ambitious EU biodiversity recovery target for 2020 and for radical reform of the Common Agriculture Policy (CAP) and more funding for investments in nature. She drew on the results of BCE work on the Grassland Butterfly Indicator, on the effects of climate change on butterflies and her knowledge about the processes and challenges of policy reform at EU level. In addition, she made links with the philosophy set out in the TEEB Report that nature is currently undervalued in decision-making and that its fundamental importance to human wellbeing and essential ecosystem service provision needs to be better understood. Following this lobbying and that of other experts and in response to EU Commission advice, EU Environment Ministers agreed in March 2010 the following new headline target: "Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss." Furthermore EU Heads of government endorsed this target and the following Vision for 2050: "By 2050 EU biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided."

2. BCE's policy director has been very active in the European Habitats Forum (EHF, a network of European Non Governmental networks, working to improve implementation of the Habitats and Birds Directives and better action for biodiversity). Sue was elected Vice-Chair of EHF.(see: <http://www.iucn.org/about/union/secretariat/offices/europe/work/?uN>

[ewsID=50](#)). The EHF has regular meetings with officials from the EU, and expresses its opinion on such occasions and gives written advice.

3. International Symposium, see appendix.
4. Online Butterfly Recording system has already been discussed in 1.2 CLIMATE CHANGE – EU policy implementation.
5. The BCE Policy Director attended the EHF meeting with Francois Wakenhut, head of Biodiversity Unit in DG Environment on 20th April 2010 in Brussels, at which she led the discussion on post 2010 biodiversity policy formulation in the light of experience with implementing the current EU Biodiversity Action Plan. She drew on the work of the EHF Working Group on Biodiversity Sub Targets which she had led. This work showed where implementation of the current EU Biodiversity Action Plan had failed to halt the loss of biodiversity and proposed new baselines and measures to track future declines or recovery. She emphasised the importance of Agriculture and Fisheries Policy Reforms and the role of green infrastructure in achieving biodiversity recovery.

The BCE Policy Director contributed to the BCE Report on the European Grassland Butterfly Indicator 1990 – 2009, published in May this year. She circulated the Report to officials in the EU Commission and the EEA and has continued to lobby for more sustained funding of butterfly indicator production and the extension of butterfly monitoring to all European countries to inform policy evaluation.

6. In her presentations in Singapore (copy of paper on "Saving Biodiversity – the contribution of EU Policy" submitted, attached at Appendix 2) and at the BC International Symposium in Reading BCE's Policy Director laid particular stress on the importance of EU nature legislation and its effective implementation in securing protection of habitats, including those for butterflies. As Vice Chair of EHF Sue has supported their work, including giving priority to advocating the importance of implementation of the Habitats Directive, sustaining the Natura 2000 network of protected areas and arguing for its benefits and the need for significantly increased EU funding. DG Environment, in cooperation with Member States, has assessed the likely cost of managing the Natura 2000 sites at Euros 6billion per annum and has proposed a "Prioritised Action Framework" to identify where this money will come from and how it needs to be spent. EHF has also supported the EU's proposed Biogeographic Seminars on N2K management.
7. The BCE Policy Director contributed to the debate on post 2010 Biodiversity Policy at European conferences and meetings in Madrid, Segovia, Brussels and Romania and Liege this year and as reported above, was delighted that we have been successful in achieving high level political support across the EU for a biodiversity recovery target for 2020. Governments from around the Globe agreed at Nagoya in October an ambitious Convention on Biological Diversity (CBD) Strategic Plan for reducing the rate of global biodiversity loss by 2020 together with a landmark agreement on access and sharing the benefits of genetic resources (ABS) and a resource mobilization strategy. These reinforce the mandate to act decisively in Europe in favour of biodiversity recovery. The European Parliament and the Commission recognize the urgent need for policy reform to achieve this, but formidable challenges remain barriers. These are particularly strong because of the power and influence of the farming lobby. Current recipients of the majority of CAP money are fiercely opposed to the necessary redistribution of payments to small farmers and others who manage in a low intensity way and deliver environmental public goods of biodiversity and landscape quality.

Sue has continued to draw attention in discussions to the evidence of the declines in butterflies and to link that to the fate of other pollinators. She has explained that that this essential ecosystem service is under threat and that there is evidence, including from the Habitats Directive Article 17 Reports from Member States, that current agricultural practices, stimulated by CAP payments, are damaging and need reform. BCE needs to continue to work with others to build a critical mass of support for the necessary reforms to CAP in 2013.

Furthermore, unless there is a substantial shift in the mindsets of economists, policy makers and industrial leaders, the political pressure to go for economic growth, as measured by GDP, regardless of environmental impacts, will prevent realization of the ambitions for biodiversity recovery. BCE needs to continue to support the efforts of EHF, CEEWEB and others to bring these fundamental and difficult issues to the fore in a way that will be listened to. In December, BCE joined the Resource Cap Coalition and signed the Coalition's joint Statement calling for a new approach to natural resource use.

Following discussions in the BCE Steering Group and with other NGOs BCE submitted a positive response to the EU internet consultation on post 2010 EU Biodiversity Strategy in October. In preparation for this, Sue attended an informal meeting in Brussels to exchange knowledge and views with staff from the World Bank, UNEP, Wetlands International, Oceana, the EEB and Syngenta, organised by the IUCN Regional Office for Europe. BCE supported the need for subtargets to stimulate integration in agriculture and greater investments in green infrastructure and in positive management of the Natura 2000 network and support for High Nature Value farming.

2.2 NATURE AND BIODIVERSITY – EU policy implementation

Objectives:

- Highlight the importance of biodiversity during the 2010 International Year of Biodiversity.
- Contribute to meeting the Goteburg target of halting biodiversity loss by helping to protect habitats, reversing losses of Lepidoptera through development of new projects to enhance habitat quality.
- Build an effective, representative and influential network of NGO partners working to conserve Lepidoptera across Europe.
- Help increase the effectiveness of EU nature and biodiversity policy implementation through developing a pan European system for recording Lepidoptera across Europe as a basic tool to underpin conservation action and monitor change and policy effectiveness.
- Help support and implement EU policies on nature and biodiversity, especially compliance with the Habitats and Species Directive.
- Develop a more effective means of sharing and disseminating information on threatened Lepidoptera species and habitats via the BC Europe website.
- Publish a new Red List of European butterflies with an up-to-date assessment of status, trends, threats and conservation action.
- Support the production of EU Species Action Plan for *Colias myrmidone*.

Activities:

1. Appoint a Butterfly Conservation Europe Network Coordinator to support the network and ensure good communication, coordination and implementation of key aspects of the BCE Work Programme.

2. Hold an International Symposium at Reading 26-28 March 2010 with sessions on 2010 assessments from across Europe; the science of conservation management; practical habitat management; and landscape scale conservation.
3. Identify priorities for action and best ways of working with partners to help implement EU policy on nature and biodiversity.
4. Establish regular communication with Partners both before and following this meeting.
5. Help the EU Commission ensure compliance with the Habitats and Species Directive, especially in recently joined MS, providing evidence of insufficiency in preparation of site lists, information about developments threatening SACs or potential SACs, and failures to develop appropriate management of Sites to achieve favourable conservation status for listed habitats and species.
6. Run training events for 3 European countries to build capacity and provide information on how to influence and implement EU policies.
7. Develop an online system for recording Lepidoptera and establish a pan-European database on Lepidoptera distributions.
8. Achieve Objective 5 (Help support and implement EU policies on nature and biodiversity, especially compliance with the Habitats and Species Directives) by adding information to the BC Europe website (www.bc-europe.eu), especially on Network Partners, project information, links to other relevant websites, and downloadable pdfs of relevant documents.
9. Collate data from Network Partners and produce a new Red List of European butterflies. Publish on IUCN website with information on status, trends, threats and conservation issues.
10. Play an active part in the Countdown 2010 initiative by participation in its Advisory Board and promotion of ambitious follow on action during the International Year of Biodiversity.
11. Provide expert input from Network Partners to the EU Action Plan on *Colias myrmidone*.

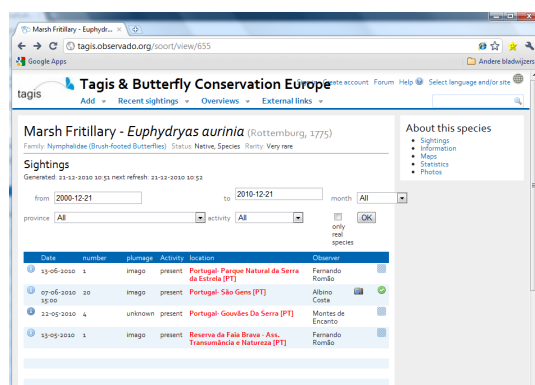
Expected results and outputs:

- An effective Network of specialist groups established across Europe that can help take practical action to conserve Lepidoptera and contribute to the implementation of EU policies on nature and the environment and monitoring of their effectiveness.
- Cessation of some damaging development activities threatening SACs important for Lepidoptera.
- A clear set of priorities for Butterfly Conservation Europe and improved working between Network Partners and Associates.
- Improved capacity of NGO organisations in eastern European countries.
- Publication of a book of Symposium proceedings and Special issue of Journal of Insect Conservation on the theme: 2010 and beyond for Lepidoptera.
- An online system for recording European Lepidoptera and the start of a potentially very large and important dataset to inform and implement EU policies on nature and biodiversity.
- Improved availability of information on the conservation of Lepidoptera across Europe via an improved website containing relevant information on the BC Europe Network, projects, links and documents.
- Strengthening of the Countdown 2010 Initiative and its follow up beyond 2010.
- More effective Action Plan for Support the production of EU action plan on *Colias myrmidone*.

Results:

1. Svetlana Miteva has been employed as BCE Network Coordinator.
2. An International Symposium was held at Reading in March 2010 (see appendix).
3. At the BCE Steering Group meeting in June we discussed the best ways of working with BCE partners to improve their understanding of EU nature and biodiversity policy and how to influence Member State Government thinking. We subsequently discussed our planned training for BCE Network Partners. During informal discussions in Green Week in Brussels the Policy Director discussed with Birdlife International partners how to strengthen collaboration. At the EFNCP Conference in Romania she discussed developing our work with colleagues from Transylvania and Bulgaria and with Plantlife International. In the margins of the AGM of Butterfly Conservation (BC UK), she discussed cooperation with colleagues in Greece and explored issues of mutual interest with colleagues from the European Interests Group of BC UK.
4. BCE has focused efforts building closer relationships with several partners, especially in countries where butterfly conservation is less well developed. Three main meetings were held:

- The workshop in November in Laufen.
- The visit of BCE network coordinator Svetlana Miteva to several butterfly specialists in Russia. The possibilities of strengthening butterfly conservation in Russia were discussed at several occasions. See also http://www.bc-europe.org/upload/BCE_visit_to_Russia_Nov2010.pdf with more details on the BCE visit to Russian Lepidopterist Organizations and Institutions.
- The visit of information officer Irma Wynhoff to Ernestino Maravalhas and Patricia Garcia Pereira in Portugal. Here the possibilities to extend butterfly conservation to Portugal were discussed. This focused also on doing a joint project with other organizations in the country, jointly with BCE. As a first trial it was decided to concentrate on determining the distribution of a butterfly listed on annex of the Habitats Directive: *Euphydryas aurinia*. A special webpage was developed, and we hope that in 2011 many volunteers will add their observations that way. This photo shows Irma Wynhoff (information officer of BCE), Eva Monteiro (Tagis), Patricia Garcia Pereira (Tagis) and Chris van Swaay (De Vlinderstichting/BCE) at the office of Tagis, the Portuguese partner of BCE.



Website to enter records of *Euphydryas aurinia* in Portugal.



BCE's Information officer Irma Wynhoff visiting the Portuguese partner Tagis.

5. The BCE Policy Director contributed to the debate with EHF colleagues on Article 17 Reporting by Member States and followed this up in discussion with DG Environment on the 20th April. She also discussed problems with safeguarding Natura 2000 sites in Greece with UK and Greek NGO colleagues and with Lazaros Pamperis, acknowledged Greek butterfly expert. She drew DG Environment's attention to the threats to butterflies and damage to their habitat on the Mount Chelmos N2K site in Greece. She has written to DG environment with our concerns about implementation of the Habitats Directive in Bulgaria and Romania and will follow this up in 2011.
6. Training events were organized on three occasions:
 - Laufen November 2010: targeted to Ukraine, Romania and Bulgaria.
 - November 2010: Moscow and St Petersburg, targeted to Russia.



The European Red List of Butterflies.
BCE produced this new Red List, which was published by the IUCN with financial support of the European Union.

- July 2010: Portugal.
- 7. Online Butterfly Recording system has already been discussed in 1.2 CLIMATE CHANGE – EU policy implementation.
- 8. The BCE website now has a lot of information available, either via direct links or as pdf. Numerous documents have been added, which can be found on www.bc-europe.eu. Two newsletters have been produced with information targeted to the partners.
- 9. Data from all BCE partners has been used to produce a new Red List of all 482 European butterfly species. It has been published on the IUCN website. A summary document has been produced in close co-operation with many organizations. See also <http://www.iucnredlist.org/initiatives/europe>.
- 10. The BCE Policy Director worked with other members of the Countdown 2010 Advisory Board in late February 2010 to develop advice to IUCN about the key elements of an effective follow on initiative to the Countdown 2010 campaign to halt the loss of biodiversity. She chaired the C2010 Advisory Board meeting with Julia Martin Lefevre, IUCN Chief Executive, John Kidd, IUCN Communications Director and other staff from IUCN, on 3rd March at Gland in Switzerland and supported the ongoing work to complete the implementation of the current Countdown 2010 campaign, during this International Year of Biodiversity. She also facilitated the discussion around the future initiative and IUCN's role in it. She wrote to John Kidd in October 2010 with some comments designed to increase the effectiveness of IUCN's outline plans for the follow on initiative. She spoke, as a member of the C2010 Advisory Board, at the celebration, attended by Ladislav Miko, DG Environment's Director of Nature, in Brussels, in December, to congratulate the C2010 team on the achievements of the Countdown 2010 Initiative and to mark its conclusion. The IUCN's commitment to a follow on initiative were confirmed at this event and she had a meeting with John Kidd, Ignace Schapps and Ben Delbeare to support and encourage IUCN to put in place a fully funded and effective business plan for this.
- 11. Martin Warren, Martina Sasic, Rudi Verovnik and Chris van Swaay have provided expert input to the EU Action Plan on *Colias myrmidone*. Martina Sasic visited a meeting on the action plan in Prague in January 2010.

2.3 NATURE AND BIODIVERSITY – integration into other policies

Objectives:

- Use information about the state and trends of butterflies and moths and the impact of sectoral policies on them, in order to emphasise why more investment is required in more environmentally friendly policies.
- Highlight the importance of sustainable agriculture, rural, forestry, regional and economic policies, for the recovery of butterfly and moth populations. Highlight the links between biodiversity conservation and climate change.

Activities:

1. Employ an experienced Director of Policy, working with the BCE Network and Board and in collaboration with other NGOs, including through the European Habitats Forum, to provide advice on policy integration and its importance to halting the loss of biodiversity.
2. Promote delivery by DG Agriculture, DG Regio, and Member State governments of their commitments to integrate biodiversity as set out in the EU Biodiversity Action Plan.

3. Hold an International Symposium at Reading 26-28 March 2010 with sessions on 2010 assessments from across Europe; the science of conservation management; practical habitat management; landscape scale conservation and climate change.

Expected results and outputs:

- Improved understanding and action by key Commission DGs to implement their commitments to integration of biodiversity concerns in their policy areas.
- Improved protection of and investment in biodiversity in EU Rural Development Programmes, in CAP policy implementation and in Cohesion Programmes.
- Publication of a book of Symposium proceedings and Special issue of Journal of Insect Conservation on the theme: 2010 and beyond for Lepidoptera

Results:

1. Sue Collins has been employed as BCE Policy Director.
2. This is the area of EU policy reform that is likely to be of the most importance to safeguarding butterflies and moths and their habitats and where the BCE Policy Director has put in the greatest effort this year. Building on the paper that Simon Spencer and she wrote for BCE in 2009, she spent a considerable time studying research findings on agriculture policy and practice and discussing with BCE and other colleagues, including David Baldock of IEEP, the effects of farming on grassland butterflies in particular. She reported on this in her paper and presentation for the Butterfly Conservation International Symposium in Reading in March.

The BCE Policy Director drew on this in her response, on behalf of BCE, to the 4 questions posed in the EU Internet Consultation in June on the Debate on CAP 2013. She also prepared a policy paper on agriculture reform and butterflies, which she sent to DG Agriculture and copied to several European colleagues, including in DG Environment and in the European Environment Agency (copy of policy paper attached at Appendix 3). The main issues causing problems are the abandonment of ecologically rich grasslands, particularly in Eastern and Central Europe, and the ploughing of semi natural grasslands in Western Europe.

In July the BCE Policy Director attended the EU Stakeholder Conference on CAP 2013 reform and spoke out in the Workshop on the importance of High Nature Value (HNV) farming to biodiversity and butterfly conservation and the need for significant CAP reform and in particular for a new scheme to support HNV farmers to continue farming grassland sustainably. Over the Summer she has worked with EFNCP on a joint paper on HNV farming, which has been presented to the EU Commission and was discussed at the Conference in Romania she attended. During this, she had the opportunity to meet Romanian farmers and talk with colleagues from many countries across Europe about agriculture and land use policy and biodiversity. The Conference Resolution, which BCE has supported, calls for a new scheme of degressive payments to HNV farmers under Pillar 1 of the CAP. The BCE Policy Director, together with Birdlife colleagues, discussed this issue with DG Agriculture colleagues in Brussels in the first week of October 2010. There are indications that the HNV paper referred to above has had an influence on thinking in DG Agriculture about how to reform the CAP and to shift some of the money into supporting delivery of environmental public goods. BCE wrote to EU Agriculture Commissioner Ciolos,



BCE's Policy Director Sue Collins (right) during an excursion on the HNV farmland conference in Romania, together with Laszlo Rakosy.

copied to EU Environment Commissioner Potocnik, reinforcing these points (copy attached at Appendix 4). BCE also wrote to Dirk Ahner, DG of DG Regio, asking for his support for more funding of HNV farming, which is important to rural communities (copy attached at Appendix 5). The EU Communication on CAP Reform 2013 has now been published. It contains some good elements like payments in Pillar 1 for ecological set aside, permanent pasture, Natura 2000 areas and a new scheme of support for small farmers. It mentions support for HNV and a new scheme of support for small farmers. BCE has been working with Birdlife International and others on a joint advocacy plan for the coming months and contributing to the preparation of a series of Fact Sheets on CAP reform, HNV, grasslands and functional biodiversity, to be published early next year. Sue attended the EU Parliament's Intergroup on Biodiversity, Sustainable Development and Climate Change's meeting of Members of the European Parliament (MEPs) and DG Agriculture on CAP Reform 2013 and continued to advocate for reforms to support HNV farming, sustainable management of semi natural grassland and recovery of butterflies and moths across the farmed landscape. She has also advocated, on behalf of BCE, the use of the Grassland Butterfly Indicator as a measure of the success of the integration of biodiversity objectives in EU agriculture policy and this idea has been welcomed by DG Environment officials. She has also promoted this idea to DG Agriculture. This proposal requires further detailed work, especially developing butterfly transect monitoring in more EU countries, if it is to be accepted by DG Agriculture eg as an Irena indicator.

BCE's policy director has also taken up with DG Environment the damage to butterfly habitats, as a result of interpretation in Sweden of the "50 trees a hectare" EU rule in deciding eligibility for CAP payments. It has now emerged, in discussion with other experts at the recent HNV Conference in Romania, that the interpretation of this is also causing a loss of biodiversity in other Member States. Sue pursued this with DG Agriculture at the Liege Nature Directors' meeting. And calls for abolition of this rule are being promoted by BCE together with EFNCP as part of the CAP 2013 Reform debate.

3. International Symposium see appendix.

2.4 NATURE AND BIODIVERSITY – awareness raising/environmental education

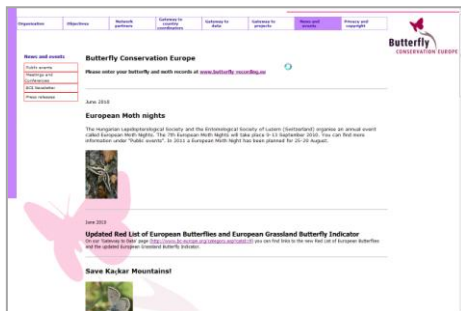
Objectives:

- To develop an online butterfly and moth recording scheme that European citizens can contribute to and that public authorities can use to inform decision making.
- To publish a new Red List of European butterflies with an up-to-date assessment of status, trends, threats and conservation action.
- To make information on European Lepidoptera and their conservation widely available via the Butterfly Conservation Europe website.
- To facilitate volunteering and engagement by citizens in protecting and enhancing biodiversity.
- To help raise awareness of biodiversity and the need for its conservation through supporting the International Year of Biodiversity.

Activities

1. Enable individuals easily to submit online records on Lepidoptera for anywhere in Europe.

2. Produce a new Red List of European butterflies. Publish on IUCN website with information on status, trends, threats and conservation issues.
3. Provide information on butterflies and moths to the public through a series of shows and public events, promote online recording to the public, and provide information via the BC Europe website.
4. To expand the website with information on partner organisations, BC Europe projects, and with links to other websites.
5. To expand the involvement of volunteers in practical conservation work and recording.
6. Hold an International Symposium at Reading 26-28 March 2010 with sessions on 2010 assessments from across Europe; the science of conservation management; practical habitat management; and landscape scale conservation.
7. Issue Press Release on the Symposium with quotes from Sir David Attenborough, Patron of BC Europe.
8. Issue at least three other press releases, linking our work to the International Year of Biodiversity.



BCE published information on butterflies on its website, for example on the European Moth night.

Expected results and outputs:

- Public better informed about butterflies and moths, and through them other wildlife and EU policies.
- An up-to-date Red List of European butterflies to enable more effective conservation.
- An online recording scheme that will encourage public participation and enable recorders to instantly see their records in relation to other records of Lepidoptera distribution. The scheme will allow ordinary citizens to contribute directly to EU Nature Conservation programmes.
- Improved availability of information on the conservation of Lepidoptera across Europe via an improved website containing relevant information on the BC Europe Network, projects, links and documents.
- Volunteer effort, worth at least €3 million in 2009, on monitoring butterflies (to an EEA agreed methodology) placed at the disposal of EU policy makers, the EU Parliament and the public to help inform their judgement of the effectiveness of implementation of EU policies for nature biodiversity and integration.
- Publication of a book of Symposium proceedings and Special issue of Journal of Insect Conservation on the theme: 2010 and beyond for Lepidoptera.
- Extensive publicity in the media (newspapers, radio and TV) on the plight of Lepidoptera and measures needed to conserve them.

Results:

1. The BCE website provides a link to the online recording system for Lepidoptera and any other species anywhere in Europe. This link connects to <http://www.butterfly-recording.eu/>. See section 1.2 results above for details.
2. For each of the 482 butterfly species in Europe, a data sheet has been developed with information about their geographic range, status of populations, habitat and ecology, threats, and conservation actions. This information is available on the website of the IUCN (<http://www.iucnredlist.org/initiatives/europe>). The fact sheets of all endemic species can be found directly, starting at the main page and searching for the species names. For non-European species we did not produce a global assessment of the conservation status of butterflies but concentrated on Europe. Therefore the data sheets will be found under the buttons



Datasheets of the Red List with information on each species' geographic range, status of populations, habitat and ecology, threats, and conservation actions.



"Butterflies: a Very British Obsession",
broadcasted on 17 December 2010 on BBC2.



Website of the European Interests Group
of Butterfly Conservation UK.

"Initiatives", followed by the button "Europe". For each species a printer-friendly fact sheet presenting all information may be downloaded.

3. BCE has added a lot of new information to its website. Partners were stimulated to bring butterflies to the attention of the wider public. In many cases excursions were given (see also EIG from BC UK at point 5). A great success was the broadcast of *"Butterflies: a Very British Obsession"* on 17 December 2010 on BBC2, which was planned with the help of Butterfly Conservation: the BCE partner in the UK.
4. The website was updated with new information. See www.bc-europe.eu.
5. BCE has strengthened its relationship with the European Interest Group (EIG) of BC UK. The EIG organizes excursions and helps with practical fieldwork, wherever necessary. BCE want to extend this relationship in future and work with them on future projects to provide a platform for volunteers who want to join in practical conservation of butterflies and their habitats.
6. An International Symposium was held in Reading (see appendix).
7. A Press Release on the Symposium was issued with quotes from Sir David Attenborough, Patron of BC Europe: see 1.4 CLIMATE CHANGE – awareness raising/environmental education
8. In 2010 BCE has issued three press releases, which can also be found on the web page (www.bc-europe.eu, go to News and Events, then choose press releases in the left menu):
 - 16 March 2010: *"European butterflies on the brink"* on the new Red List of European Butterflies.
 - March 2010: *International Symposium of Butterfly Conservation dealing with target to halt loss of biodiversity*
 - 10 December 2010: *"Grassland butterflies plummet across Europe" on the results of the European Grassland Butterfly Indicator"*.

2.5 NATURE AND BIODIVERSITY – international aspects

Objectives:

- To share knowledge on the status and conservation methods for Lepidoptera.
- To continue to support practical projects for butterfly conservation in Eastern European countries.
- To help Turkey be better prepared to adopt the EU Environmental Acquis, including through identifying those areas which would qualify as Habitats Directive Sites for their listed butterflies.
- To improve cooperation with Russia, Ukraine and Turkey to increase NGO capacity to promote biodiversity conservation.

Activities:

1. Hold an International Symposium at Reading 26-28 March 2010 with sessions on 2010 assessments from across Europe; the science of conservation management; practical habitat management; landscape scale conservation; and climate change.
2. Invite representatives from E. Europe to attend conference and present papers or posters.

3. Organise a training course to build capacity for experts from eastern European countries.
4. Meet representatives from Russia, Ukraine and Turkey to discuss collaboration and NGO activities in these countries.



Partners of BCE during a discussion in the workshops in Laufen in November 2010.

Expected results and outputs:

- Publication of a book of Symposium proceedings and Special issue of Journal of Insect Conservation on the theme: 2010 and beyond for Lepidoptera.
- Increased capacity in eastern European partners to implement EU nature directives.
- Increased awareness of EU policy issues amongst BC Europe partners and increased capacity to assist implementation of EU policies.
- Better preparedness to adopt the EU Environmental Acquis and Turkey in due course.
- Increased NGO capacity to promote biodiversity conservation in Russia, Ukraine, and Bulgaria.

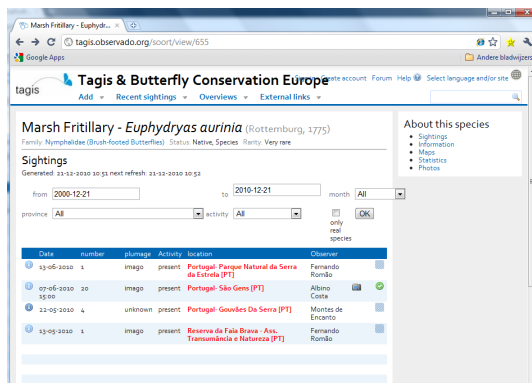
Results:

1. An International Symposium was held in March (see appendix).
2. The Ukrainian and Bulgarian partners were invited to the workshop in Laufen in November 2010. The possibilities of extending the work of BCE in those countries were discussed. A lot of attention was given to the work for the next reporting for Article 17 of the Habitats Directive in 2013.

The Portuguese partners of Tagis (www.tagis.org) were visited in July. Special attention was given to online recording, in close co-operation with www.biodiversity4all.org and www.observado.org. The Portuguese partner wanted to focus on one species. After some discussion the Habitats Directive species *Euphydryas aurinia* was chosen. A special page was constructed to enter observations, which will become active in 2011. But even now there are already some observations (see left).

BCE's network coordinator Svetlana Miteva visited most of the Russian experts during her trip to Moscow and St Petersburg in November 2010. Main topic of the discussion were on online recording and the problems, butterfly conservation faces in the huge country of Russia.

3. The training course was given in Laufen in November 2010 and was visited by approximately 25 people, mainly from BCE partners and other organizations from Romania, Bulgaria and Ukraine. Sue Collins gave a presentation and ran a workshop for partners from Eastern and Central Europe on Agriculture Policy reform and on EU Nature and Biodiversity policy.
4. Board members of BCE met with Evrim Karacetin and Hilary Welch from Doga Koruma Merkezi (DKM, Turkey) at the International Symposium in Reading. Following this meeting, a website was produced and action taken to save the global biodiversity hotspot in the Kackar Mountains in NE Turkey. A petition signed by over 150 delegates was sent to the Turkish Minister for the Environment and almost 1000 people have signed the online petition on www.savekackars.com. For cooperation with other countries see above.



Website to enter records of *Euphydryas aurinia* in Portugal.



A website was produced and action taken to save the global biodiversity hotspot in the Kackar Mountains in NE Turkey.

3. HEALTH AND ENVIRONMENT

3.4 HEALTH AND ENVIRONMENT – awareness raising/environmental education

Objectives:

- To promote butterflies and moths as indicators of a healthy environment, which contributes to human wellbeing.

Activities:

1. Provide information on butterflies and moths to the public through public events, promote online recording to the public, and provide information via the BC Europe website, making links between a healthy environment and healthy people.
2. Hold an International Symposium at Reading 26-28 March 2010 with sessions on 2010 assessments from across Europe; the science of conservation management; practical habitat management; and landscape scale conservation.
3. Issue Press Release on the Symposium with quotes from Sir David Attenborough, Patron of BC Europe, raising awareness of the links.

Expected results and outputs:

- Public better informed about the links between health of wildlife populations and healthy ecosystems and wellbeing.
- Publication of a book of Symposium proceedings and Special issue of Journal of Insect Conservation on the theme: 2010 and beyond for Lepidoptera.
- Extensive publicity in the media (newspapers, radio and TV) on the plight of Lepidoptera, measures needed to conserve them and the links with ecosystem services.

Results:

1. See previous chapters.
2. International symposium see appendix.
3. See 1.4 CLIMATE CHANGE – awareness raising/environmental education.

4. RESOURCES AND WASTE

4.2 RESOURCES AND WASTE – EU policy implementation

Objectives:

- To promote sustainable production and consumption as part of a reformed economic policy to support biodiversity and ecosystem recovery.

Activities:

1. Provide evidence of the links between unsustainable production, consumption and loss of biodiversity.
2. Support Countdown 2010 initiatives with municipalities and business.
3. Work with one major international retailer to promote sustainable production and consumption.

Expected results and outputs:

- More awareness to support Countdown 2010 initiative with business and local and regional authorities.
- Demonstration of ways to promote sustainable consumption.

Results:

1. At the EU Presidency Biodiversity Conference Plenary in Madrid in January 2010, the BCE Policy Director raised the importance of including biodiversity in the EU 2020 Strategy. Subsequently, she promoted with EHF and DG Environment officials the need for the EU Resource Efficiency initiative element of the Strategy, which is being led by the EU Environment Commissioner, to explicitly include the protection and recovery of biodiversity. BCE and other members of EHF wrote to the Commissioner about the links. We received a positive reply and offer of a meeting with the Commissioner (see BCE/EHF letter and Commissioner Potocnik's reply attached at Appendix 6) to discuss this further in due course. BCE became a member of the Resource Cap Coalition and supported the Statement by the Coalition which called for a cap on resource use and was widely circulated.
2. At the Countdown 2010 Advisory Board meeting in Gland, Switzerland on 3 March 2010, the BCE Policy Director encouraged the C2010 Secretariat to continue with the C2010 Campaign Implementation programme and stressed to IUCN the importance of keeping current partners, including business and municipalities and growing the network of active stakeholders as part of the follow on initiative. She persuaded Cambridge City Council (her own municipality) to become a Countdown 2010 partner and joined the Mayor of Cambridge and spoke at the launch in June 2010.
3. No achievements were made to work together with a major retailer to promote sustainable production.

5. HORIZONTAL AND CROSS CUTTING ISSUES (including participation to standardisation processes)

5.1 HORIZONTAL AND CROSS CUTTING ISSUES – EU policy formulation

Objectives:

- To raise awareness of the economic value of ecosystem services and so promote biodiversity and ecosystem conservation.

Activities:

1. With EHF, promote the findings of the TEEB studies and report, and promote adoption of TEEB recommendations for policy makers.

Expected results and outputs:

- Better understanding that biodiversity is intrinsically and economically valuable, that conservation makes sense and is an urgent priority for investment.

Results:

1. At the seminar in Oxford in September 2010 Pavan Sukhdev, banker and leader of the international TEEB study, was the keynote speaker, at the invitation of the BCE Policy Director. Both of them promoted the latest findings on the economics of ecosystems and biodiversity and the need for decision makers to move from "business as usual" to assigning a proper value to natural assets and accounting for them fully in decision taking. The BCE Policy Director has also emphasised the need to put a higher value on nature in many of her informal discussions around Europe.

5.4 HORIZONTAL AND CROSS CUTTING ISSUES – awareness raising/environmental education

Objectives:

- To raise awareness of nature and biodiversity by encouraging broader participation in biological recording.
- To teach members of the public to identify and record common species, and gain a better understanding of the natural world and functioning of ecosystems.
- To share information on Lepidoptera trends and progress towards the 2010 target, and conservation measures that can be taken.
- To produce a new Red List of European butterflies.

Activities:

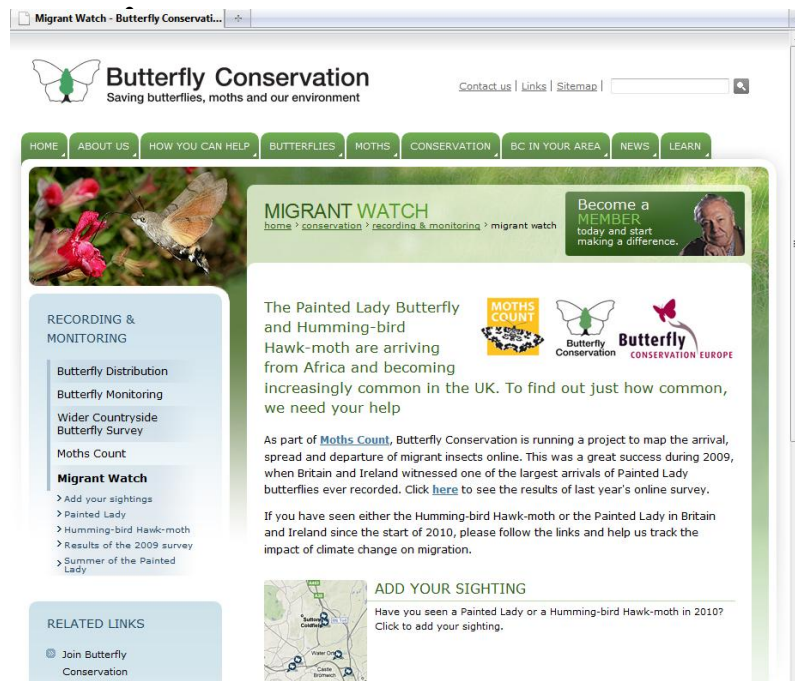
- 1) Develop and run popular citizen science recording projects in at least four countries (UK, France, Netherlands, Portugal).
- 2) Promote European Moth Night.
- 3) Hold an International Symposium at Reading 26-28 March 2010 with sessions on 2010 assessments from across Europe; the science of conservation management; practical habitat management; landscape scale conservation; and climate change.
- 4) Issue Press Release on the Symposium with quotes from Sir David Attenborough, Patron of BC Europe.
- 5) Collate data from Network Partners and produce a new Red List of European butterflies. Publish on IUCN website with information on status, trends, threats and conservation issues.

Expected results and outputs:

- Greater awareness of nature and biodiversity.
- Increased skills and participation in recording.
- Greater awareness of moths and their role in ecosystem function.
- Publication of a book of Symposium proceedings and Special issue of Journal of Insect Conservation on the theme: 2010 and beyond for Lepidoptera.
- Extensive publicity in the media (newspapers, radio and TV) on the plight of Lepidoptera and measures needed to conserve them.
- Improved conservation of threatened butterflies and moths.

Results:

1. The following citizen science recording projects were run:
 - In the UK the online Migrant Watch (aimed at the Painted Lady and the Hummingbird Hawk moth, two migrant species) was a great success with over 4,000 records submitted.



Migrant Watch website.

In France the garden butterfly project is very successful.



The website of the French Garden Butterfly Project.

- In the Netherlands www.vlindermee.nl offers a site where everyone can enter butterfly observations in the garden.



The website of the Dutch Garden Butterfly Project.

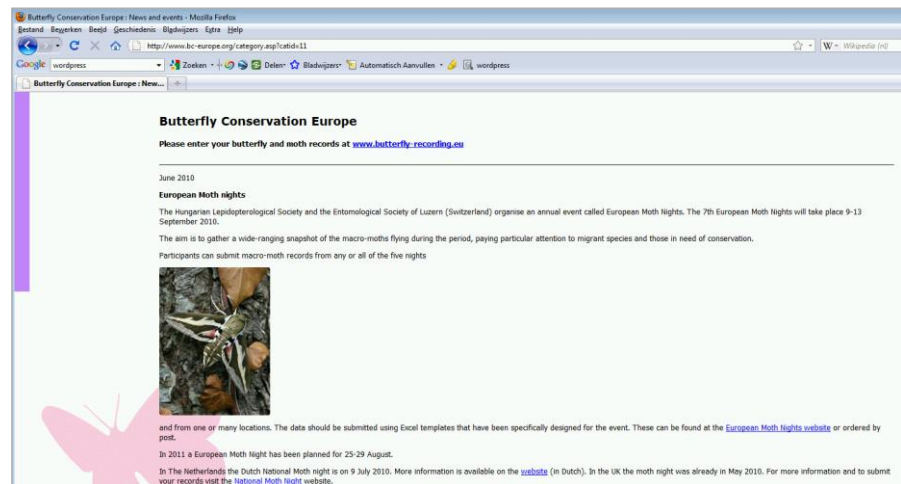
- In Portugal BCE together with www.tagis.org made a special webpage for entering observations of *Euphydryas aurinia*, a species listed on annex II of the Habitats Directive.

The website to enter Portuguese observation of the Habitats Directive species Euphydryas aurinia.

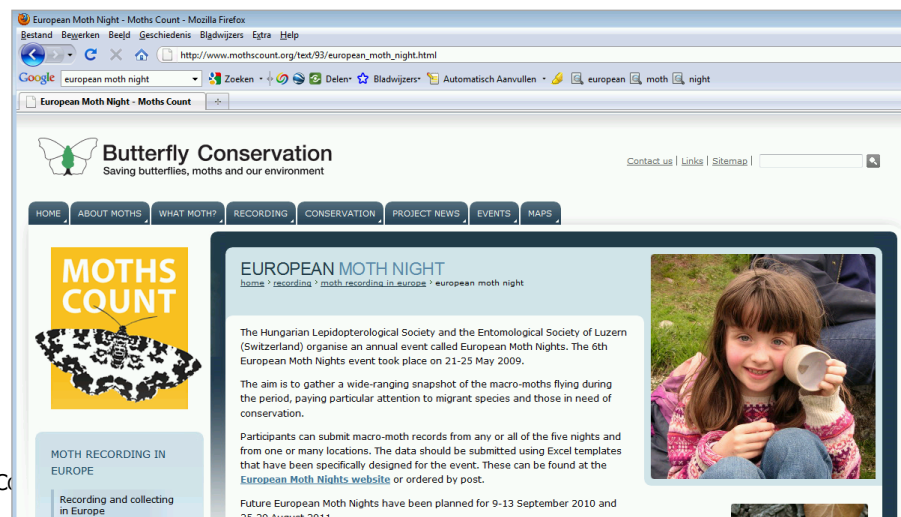
Date	number	plumage	Activity	location	Observer
13-06-2010	1	imago	present	Portugal- Parque Natural da Serra da Estrela [PT]	Fernando Romão
07-06-2010	20	imago	present	Portugal- São Gens [PT]	Albino Costa
22-05-2010	4	unknown	present	Portugal- Gouvães Da Serra [PT]	Montes de Encanto
13-05-2010	1	imago	present	Reserva da Faia Brava - Ass. Transumância e Natureza [PT]	Fernando Romão

- Much more information on the projects from the BCE partners can be found on <http://www.bc-europe.eu/subcategory.asp?catid=4&SubCatID=149>.
2. Promotion of European Moth night: BCE has put the news on the European Moth night on the website. Also some of the partners paid attention on their websites.

Attention to the European Moth Night on BCE's Website.



Attention to the European Moth Night on the website of Butterfly Conservation UK.

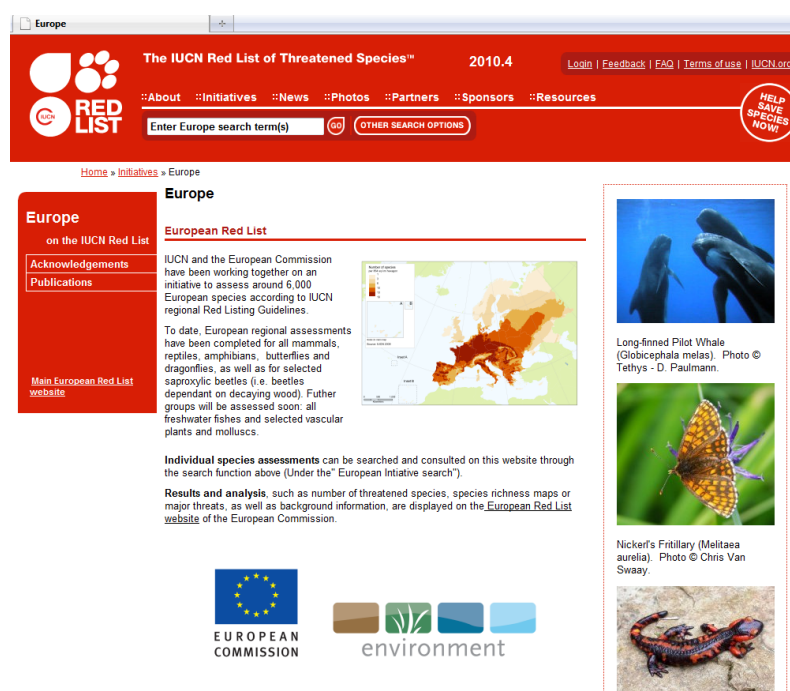


Attention to the European Moth Night and Dutch Moth Night on the website of De Vlinderstichting (Dutch BC).



3. International symposium see appendix.
4. See 1.4 CLIMATE CHANGE – awareness raising/environmental education
5. Data from all BCE partners has been used to produce a new Red List of all 482 European butterfly species. It has been published on the IUCN website. A summary document has been produced in close co-operation with many organizations. See also <http://www.iucnredlist.org/initiatives/europe>:

The information and data from BCE and its partners has been used to produce a new Red List of European Butterflies, published on the website on the Red Lists of the IUCN.



5.5 HORIZONTAL AND CROSS CUTTING ISSUES – international aspects

Objectives:

- To share best practice with accession countries and other non-EU countries to encourage collaboration on biodiversity issues.

Activities:

1. Run training events on EU policy and ecological issues and share information amongst network partners from west and east Europe.
2. Share best practice and develop standard monitoring and recording protocols.

Expected results and outputs:

- Improved knowledge of ecological issues, state of biodiversity, the relationship between biodiversity and climate change adaptation and mitigation
- Build up capacity in accession and non-EU countries to implement EU Directives on biodiversity in due course.

Results:

1. At the workshop in November in Laufen, BCE organized a session on implementing biodiversity into land use systems and a workshop in the afternoon. The programme of that day:

12.45 - 13.00	Developing policy responses for maintaining High Nature Value farming <i>Guy Beaufoy, European Forum on Nature Conservation and Pastoralism</i>
❖ Conclusions	
13.00 - 14.30	Using agri-environment to preserve High Nature Value farming in Transylvania. <i>Nat Page and Razvan Popa, Fundatia ADEPT, Romania</i>
❖ Lunch	
14.30 - 18.00	The new Red List of European butterflies - what does it tell us about the state of European land use. <i>Chris van Swaay, Butterfly Conservation Europe, TBC!!</i>
Third Main Topic "Fundings for saving Biodiversity" (Chaired by H. Friederich/IUCN)	
❖ Keynote speech & further presentations	
o Conservation Finance - A mounting challenge in the face of climate change	11.00 Coffee break
o The economics of Ecosystems and Biodiversity	11.30 Workshop: Policy opportunities for agricultural reform <i>introduced by Sue Collins, Director of Policy, Butterfly Conservation Europe</i>
o TEEB-Financing protected Habitat Management	12.30 Conclusions
❖ Workshops	13.00 - 13.30
Wednesday, 24. November 2010	❖ Perspectives for a long term protection of Biodiversity in Europe"
Fourth Main Topic "How to implement Biodiversity into Land Use Systems - Examples & Perspectives (Chaired by BCE)	o Education as a tool to aware children for biodiversity <i>Tanja Berthold, ALP, Dillingen</i>
09.00 - 11.00	13.30
❖ Keynote speech & further presentations	❖ End of the conference
Welcome and introduction to topic <i>Josef Settele, Chair of BC Europe</i>	
From Thursday, 25. November until Friday 26. November further Workshops for special interest groups and research projects	

2. Josef Settele (chairman of BCE) giving his keynote speech:



Sue Collins (BCE's Policy Director) giving her workshop on policy opportunities for agricultural reform:



3. In the workshop in the afternoon of 24 November 2010 in Laufen, Chris van Swaay gave a workshop on best practice and the development of standard monitoring and recording protocols. The workshop was attended by appr. 25 participants, mainly from Romania, Bulgaria and Ukraine. It was followed by very lively discussions. Apart from the pro's and con's of online recording, the next reporting obligation for countries of the EU on article 17 of the Habitats Directive in 2013 was an important topic. This photo gives an impression of the discussion:



6. ORGANISATIONAL DEVELOPMENT AND CAPACITY BUILDING

Objectives:

- To employ the first staff members of the organisation to help build the network and implement the work programme.
- To build an effective and representative network of partners working to conserve Lepidoptera across Europe.
- To enhance the capacity of this network to act strategically and to advise effectively at EU and Member State level on policies for or affecting biodiversity.
- To enhance the staff resources available to support capacity building within network partners, especially those from eastern Europe.
- To increase the professionalism of the network's operations and ensure effective publicity.

Activities:

1. To employ a part-time Network Co-ordinator and Information Officer, employ an experienced Policy Director to input into EU policy development, and take on an experienced contractor (see 6).
2. To run training events to share expertise and build capacity, focussing on young organisations in eastern European countries.
3. Hold an International Symposium at Reading 26-28 March 2010 with sessions on 2010 assessments from across Europe; the science of conservation management; practical habitat management; and landscape scale conservation.
4. To identify priorities for an ongoing work programme and best ways of working with these partners.
5. Establish regular communication with Partners both before and following this meeting.
6. To take on a contractor to develop an online system for recording Lepidoptera and establish a pan-European database on Lepidoptera distributions, and to develop a robust climate change indicator.
7. Adding information to the BC Europe website (www.bc-europe.eu), especially on Network Partners, project information, links to other relevant websites, and downloadable pdfs of relevant documents (e.g. Species Action Plans, Policy documents).
8. A network coordinator to ensure coherent programme and publicity within Network Partners and to work with emerging NGOs in Eastern Europe.
9. An experienced Policy Director to work with other NGOs, the European Commission and others on policy development and implementation.

Expected results and outputs:

- Experienced staff and contractor capable of delivering high quality work for BC Europe and supporting EU policy development and implementation.
- An effective Network of specialist groups established across Europe that can help take practical action to conserve Lepidoptera and contribute to the implementation of EU policies on nature and the environment, including implementation and monitoring of the Habitats and Species Directive.
- A clear set of priorities for Butterfly Conservation Europe and improved way of working with Network Partners and Associates.
- An online system for recording European Lepidoptera and the start of a potentially very large and important dataset to enable Network Partners to collate data for their own countries and encourage citizen participation in recording.

- Improved availability and sharing of information on the conservation of Lepidoptera across Europe via an improved website containing relevant information on the BC Europe Network, projects, links and documents.
- Publication of a book of Symposium proceedings and Special issue of Journal of Insect Conservation on the theme: 2010 and beyond for Lepidoptera.
- Extensive publicity in the media (newspapers, radio and TV) on the plight of Lepidoptera and measures needed to conserve them.

Results:

1. Sue Collins has been employed as BCE Policy Director, Svetlana Miteva as Network Coordinator and Irma Wynhoff as Information Officer.
2. See 5.5 HORIZONTAL AND CROSS CUTTING ISSUES – international aspects.
3. International symposium see appendix.
4. In 2010 BCE has strengthened contacts with the partners. Two newsletters have been produced (see <http://www.bc-europe.org/subcategory.asp?catid=11&SubCatID=146>) and all partners have been asked to give their main topics and present it on the BCE website (see <http://www.bc-europe.eu/subcategory.asp?catid=4&SubCatID=149>).
5. Two newsletters have been produced (see <http://www.bc-europe.org/subcategory.asp?catid=11&SubCatID=146>).
6. Chris van Swaay from De Vlinderstichting has prepared an online recording system. It can be found at www.butterfly-recording.eu. Collaboration has also started with www.observado.org , as a many people enter their observation through that site. We hope to integrate both online recording schemes in 2011, so that all observations will be available for the partners of BCE (e.g. atlases, reporting on Article 17 of the Habitats Directive, etc.).
7. A lot of information has been added on www.bc-europe.eu.
8. The Network coordinator has been very active in approaching Eastern European partners. Some of them attended the workshop in Laufen. She made a special trip to Russia to meet up with all major lepidopterists, both in Moscow and St Petersburg. As a result several new potential BCE partners have been identified.
9. The Policy Director has been very active in promoting butterfly conservation and BCE all around Europe. See the rest of this document for her work.

**6.15) Organisational Development and Capacity Building:
Participate in BCE Board and Steering Group Meetings and Report
on progress**

There have been two board meetings of BCE: one in Reading (UK) in March and one in Laufen (D) in November 2010. Photo of the board meeting in Laufen in November:



The BCE EU Contract Steering Group met twice at Schiphol Airport in June 2010 and October 2010 and reported on progress on the work programme (from left to right: Martin Warren, vice chairman BCE, Irma Wynhoff, information officer, Sue Collins, Policy Director and Svetlana Miteva, network coordinator).



Chapter 3 / Indicators

Part 1 – Policy development and implementation

Types of outputs	Details	Estimated number	Comment	Result
Participation in expert groups	Working groups, advisory committees etc. in the Commission or other EU institutions	7	<ul style="list-style-type: none"> Biodiversity Indicators/SEBI 2010 EEA working group Climate Change and Biodiversity EU Working Group Article 17 EU working group EU Biodiversity Co-ordination Group EU Nature Directors informal meeting EU Parliament inter-group on biodiversity and climate change European Habitat Forum 	Participation in 2 informal Meetings of EU Nature Directors in Segovia and Liege promoting ambitious action to sustain and restore biodiversity and reform EU policies eg CAP Attendance at EU Parliament Inter Group on Biodiversity , Sustainable Development and Climate Change and promoted need for support for HNV farming in CAP Reform Vice Chair of European Habitats Forum, attended meetings and supported EHF advocacy to EU Biodiversity Coordination Group and associated Working Groups eg on Article 17 Reporting
Replies to stakeholder consultations	Launched by the Commission	Several	<ul style="list-style-type: none"> EU Biodiversity communication Other relevant consultations to be issued in 2010 	<ul style="list-style-type: none"> Improving reporting under Article 17 EU Biodiversity Communication CAP Reform 2013 EU Biodiversity Strategy LIFE+
Participation in stakeholder meetings, public hearings etc.	In the Commission or other EU institutions	4	<ul style="list-style-type: none"> Biodiversity Climate Agriculture etc 	EU Post 2010 Biodiversity Policy in Madrid Stakeholder Meeting on LIFE+ in Brussels Stakeholder Meeting on CAP Reform 2013 in Brussels...
Press releases	Electronic and/or paper issues	5	To be issued jointly with Butterfly Conservation (UK)	5 press releases: see http://www.bc-europe.org/subcategory.asp?catid=11&SubCatID=147
Written submissions to EU institutions	Position papers, policy briefings, statements, letters etc. in electronic and/or paper form	10 + others as appropriate	<ul style="list-style-type: none"> New Red List website New Red List report Updated Climate Indicator Grassland Indicator results Proceedings of International Symposium 2020 target and vision HNV farmland Sustainable funding of indicators Improving reporting under Article 17 Need for agricultural policy reform 	<ul style="list-style-type: none"> Red list website in cooperation with IUCN and EU: http://www.iucnredlist.org/initiatives/europe Red List Report: http://www.iucnredlist.org/documents/Europe/European_Red_List_butterflies_final.pdf Grassland indicator: http://www.bc-europe.org/upload/Vs2010-010%20European%20Butterfly%20Indicator%201990-2009.pdf Proceedings Symposium: They will be published early 2011 in a special edition of the Journal of Insect Conservation.

Types of outputs	Details	Estimated number	Comment	Result
				<ul style="list-style-type: none"> • 2020 target and vision – email to DG Environment re biodiversity sub targets • Improving reporting Art. 17: During the workshop in Laufen a lot of attention was given to this subject. • BCE published a document of management do's and don'ts for butterflies of the Habitats Directive: http://www.bc-europe.org/upload/Dos_and_donts_for_butterflies_of_the Habitats Directive.pdf and sent it to DG Environment and others • Need for agricultural policy reform- letter to Commissioner Potocnik on biodiversity and CAP Reform; policy paper on butterflies, biodiversity recovery and agriculture policy reform (see BCE website) sent to DG Environment • Importance of HNV farmland; Policy Report published with EFNCP et al and sent to DG Agriculture and others http://www.google.nl/url?sa=t&source=web&cd=1&ved=0CBoQFjAA&url=http%3A%2F%2Fwww.bc-europe.org%2Fupload%2FDesigningIndicatorsForHighNatureValueFarming.pdf&rct=j&q=hmv%20farmland%20bce&ei=Mc8QTbzqBI_qOfj0nbkJ&usq=AFQjCNHFC9eF7Y7EmFf5EidXGHfUyN6nZQ&sig2=0DP9U52fpavITqwoJMEmxg&cad=rja • Damage to butterflies from implementation of the 50 trees per hectare rule under CAP – emails to DG Environment • Use of Grassland Butterfly Indicator to help evaluate success of EU Agriculture policy – emails to DG Environment and Agriculture • Importance of Wilderness to biodiversity – EHF letter to DG Environment • Need for resource based approach to EU Resource Efficiency Initiative, supporting biodiversity recovery – letter to Commissioner Potocnik • Climate Change impacts – butterfly indicator and relevant research studies – email and report and abstracts sent to DG Environment and DG Agriculture

Types of outputs	Details	Estimated number	Comment	Result
Studies undertaken	Internal or commissioned	7	<ul style="list-style-type: none"> • Climate Indicator • Status of near threatened butterflies • 4 Citizen Science projects • Section in Atlas of the Spanish Endangered Invertebrates 	<ul style="list-style-type: none"> • Climate Indicator: http://www.bc-europe.org/upload/Impact_of_climate_change_on_butterfly_communities_1990-2009.pdf • Status of near Threatened butterflies: part of Red List, see http://www.iucnredlist.org/initiatives/europe • Citizen Science Projects: UK: http://www.butterfly-conservation.org/migrantwatch France: http://www2.mnhn.fr/vigie-nature/spip.php?rubrique3 NL: http://vlindermee.nl/ Portugal: http://tagis.observado.org • Spanish Endangered Invertebrates atlas: Three chapters in the Atlas of Spanish Endangered Invertebrates: Verdú, J. R. y Galante, E., eds. 2009. Atlas de los Invertebrados Amenazados de España (Especies En Peligro Crítico y En Peligro). Dirección General para la Biodiversidad, Ministerio de Medio Ambiente, Madrid, 340 pp. -Munguira, M.L., Martín Cano, J., García-Barrios, E. y Pajarón, J. L. 2008. <i>Agriades zullichi</i> Hemming, 1933. Pp:176-179 -Martín Cano, J., García-Barrios, E. y Munguira, M.L. 2008. <i>Lycaena helle</i> (Denis y Schiffermüller, 1775). Pp:180-184 -Munguira, M.L., Martín Cano, J., García-Barrios, E. y Pajarón, J. L. 2008. <i>Polyommatus golgus</i> (Hübner, [1813]). Pp:185-189
Conferences/events organised	> 50 participants	1	<ul style="list-style-type: none"> • International Symposium, Reading 26-28 March 2010. Attendance = c300 	<ul style="list-style-type: none"> • International Symposium, Reading, 26-28 March 2010, attendance = c300 • See appendix 1
	< 50 participants	5	<ul style="list-style-type: none"> • 3 Workshops with partners • 2 Board meetings 	<ul style="list-style-type: none"> • Partner workshops: Three in Laufen in November 2010. • Board meetings: Reading UK in March 2010 and Laufen D in November 2010.
Active participation/contributions to conferences/events (presentations, panel debates etc.)	> 50 participants	20-30	<ul style="list-style-type: none"> • Presentations and posters by BCE and Partners at Reading Symposium • Countdown 2010 partners assembly 	<ul style="list-style-type: none"> • There was no Countdown 2010 Partners Assembly in 2010 http://www.countdown2010.net/partnerid?id=59 • International Symposium "The 2010 Target and Beyond"

Types of outputs	Details	Estimated number	Comment	Result
			<ul style="list-style-type: none"> International conference on Asian/European cooperation on biodiversity (Singapore) 	<p>for Lepidoptera”, Reading, 26-28 March 2010, attendance = c300. Presentations by BCE Board Members, Director of Policy and representatives of BCE partners.</p> <p>-ANL Conference “Biodiversity and Land use Systems in Europe”, 21-24 November 2010 in Laufen (Germany), attendance = c 50.</p> <p>Presentations by BCE Board members, Chris van Swaay, BCE Director of Policy and BCE Partners.</p> <p>-EFNCP Conference “High Nature Value grasslands: securing the ecosystem services of European farming post 2010”, 7-9 September 2010 in Sibiu, Romania, participation by BCE Director of Policy. Attendance - 96.</p> <p>-Conference by the Institute for Security and Development Policy on “Regional Environmental Cooperation in Biodiversity Protection: Lessons from Two Regions”, 22-23 February 2010, in Singapore. Presentation on EU Biodiversity Policy and the Case of Forestry by Director of Policy and Paper to be published in 2011. Attendance ~40</p> <p>-EU Presidency Biodiversity Conference Plenary “Post-2010 Biodiversity Vision and Target - The role of Protected Areas and Ecological Networks in Europe”, 26-27 January 2010 in Feria de Madrid, participation by Director Policy. Attendance ~ 300</p>
	< 50 participants	1	<ul style="list-style-type: none"> SEBI 2010 	<ul style="list-style-type: none"> There was no meeting of SEBI 2010 in 2010. Instead BCE participated in the GEO BON initiative (workgroup 2 on terrestrial monitoring) with two workshops: GEO BON detailed implementation meeting, 22-25 February 2010 in Asilomar, California, USA GEO BON 12-15 July 2010 in Obidos, Portugal Countdown 2010: Informal speech by Director of Policy at

Types of outputs	Details	Estimated number	Comment	Result
				closing celebration for Countdown 2010 in Brussels (see video on Youtube • http://www.countdown2010.net/partnerid?id=59
Other policy areas than environment covered	Development, fisheries, transport, energy etc.	1	• Biodiversity/agriculture integration	<ul style="list-style-type: none"> • Need for radical reform of CAP to ensure public money for public goods, greater support for HNV farming, Natura 2000, targeted Agri-environment schemes and investment in biodiversity recovery – email to Commissioner Ciolos and policy paper on Butterflies, Biodiversity Recovery and Agriculture Policy Reform, sent to DG Agriculture • Need for support for HNV farming to support biodiversity and rural development through CAP Reform – Report with EFNCP sent to DG Agriculture and email to Dirk Ahner, Director General of DG Regio
Actions taken to draw attention to non-compliance with EU policy	Formal complaints, various forms of information and notifications to the Commission, press releases reporting non-compliance etc.	3	• Romania, Greece and Bulgaria	• Compliance with Habitats Directive in Greece, Romania and Bulgaria – email to DG Environment for informal discussions.
Infringement procedures	Started or advanced by the Commission on the basis of NGO information	1	• Dependent on above	• None

Part 2 – Awareness raising/environmental education

Materials and knowledge disseminated

Types of outputs	Comments	Estimated number	Comment	Result
Communication/ education material	Books, brochures, educational kits, guidelines, videos etc. Electronic and/or paper form	3	<ul style="list-style-type: none"> • Book of Proceedings of International Symposium • Summary of Red Data Book of European Butterflies (with IUCN) • Website materials 	<ul style="list-style-type: none"> • The proceedings will be published early 2011 as a special issue of the Journal of Insect Conservation. • Summary of the Red List: http://www.iucnredlist.org/documents/Europe/European_Red_List_butterflies_final.pdf • Website materials: a document of do's and don'ts for butterflies of the Habitats Directive: http://www.bc-europe.org/upload/Dos_and_donts_for_butterflies_of_the_Habitats_Directive.pdf

Types of outputs	Comments	Estimated number	Comment	Result
Periodicals	Newsletters, weekly or monthly magazines etc. Electronic and/or paper form	2	<ul style="list-style-type: none"> 6 monthly newsletter to Network Partners 	<ul style="list-style-type: none"> Two Newsletters have been published in October and December 2010. See http://www.bce-europe.org/subcategory.asp?catid=11&SubCatID=146
Subscriptions	Number of subscribers to electronic and/or paper issues of periodicals	37	<ul style="list-style-type: none"> Network Partners in 34 countries. They will then be forwarded to hundreds of relevant researchers and practitioners across Europe. 	<ul style="list-style-type: none"> The newsletters have been sent to at least 200 addresses of colleagues and organizations, who have further spread it.
Educational activities on EU policy implementation and development	External education actions targeting students, professionals, officials etc.	2	<ul style="list-style-type: none"> Book from Symposium Special issue of Journal of Insect Conservation 	<ul style="list-style-type: none"> The proceedings will be published early 2011 as a special issue of the Journal of Insect Conservation.

Part 3 – Organisational development and capacity building

Change in organisational capacity

Types of outputs	Comments	Estimated number	Comment	Results
Staff training	Number of hours of training	60	<ul style="list-style-type: none"> Attendance at International Symposium 	<ul style="list-style-type: none"> The International Symposium in Reading was visited by more than 300 participants. BCE members gave 16 oral presentations, either directly or as a co-author.
Network capacity building	Initiatives to share skills and build capacity within the network	3	<ul style="list-style-type: none"> Workshops with partners in East Europe 	<ul style="list-style-type: none"> Two workshops (focusing on Romania, Bulgaria and Ukraine) were given in Laufen on 23 November 2010. The Network coordinator visited Russia and gave workshops in Moscow and St Petersburg to 30 Lepidoptera specialists. Director of Policy discussed issues with potential additional partners in Romania.
Strategic approach development	Organisational strategy developed/improved	1	<ul style="list-style-type: none"> New BCE strategy 	<ul style="list-style-type: none"> The BCE Priority Action Plan has been discussed and updated in the light of developments during 2010 and the receipt of the EU grant.
Financial management development	Financial systems/tools developed/improved	1	<ul style="list-style-type: none"> EU grant audit 	<ul style="list-style-type: none"> The audit by Moore & Stephens in October 2010 has been reported to the EU.
Evaluations	Internal evaluations of activities undertaken	2	<ul style="list-style-type: none"> Board evaluations twice per year 	<ul style="list-style-type: none"> Board representatives Martin Warren and Theo Verstrael have evaluated the work of the employees of BCE in June and October 2010. Board meetings on 25 March 2010 in Reading (UK) and 23 November 2010 in Laufen (D)
Membership development	Additional organisations that have joined the network	5	<ul style="list-style-type: none"> Estimate depends on decisions by potential partners 	<ul style="list-style-type: none"> Three Russian organizations have joined the network, in addition another Russian organization, a Serbian, a Hungarian are in the process of application. The network in Spain is about to be increased by one partner.
Press coverage	Number of times that the	20		<ul style="list-style-type: none"> http://www.telegraph.co.uk/earth/wildlife/7455159/One-third-of-Europes-butterflies-in-decline-according-to-

	organisation is quoted or covered in EU related and international media			Red-List.html <ul style="list-style-type: none"> • http://www.guardian.co.uk/environment/2010/mar/16/europe-butterflies-decline • http://www.guardian.co.uk/environment/2010/dec/09/grassland-butterflies-decline-europe • http://www.bc-europe.org/upload/Independent26-3-10.pdf • Welsh butterflies flying close to extinction • Red alert for loss of butterflies in Europe • Climate change and habitat loss posing great threat to Europe's small creatures • Butterflies 'facing extinction' • Habitat loss wiping out Europe's butterflies • European insect species under threat • Brussels 'red alert' over the extinction of Europe's butterflies • Europe's Insects Threatened By Habitat Loss • Butterflies, beetles, and dragonflies declining in Europe • 10 per cent of European butterflies under threat • Europe raises red flag on future of animal species • Bugs off: Habitat loss killing Europe's butterflies, beetles and dragonflies • Dragonflies, beetles and butterflies placed on red alert • European butterfly species under threat • Papillons et libellules menacés par la destruction de leur habitat ... • Papillons et libellules menacés par la destruction de leur habitat ... • Environnement: les libellules, les scarabées et les papillons en péril • Cri d'alarme pour les papillons et libellules • Papillons et libellules en danger • Papillons et libellules menacés • Mariposas, escarabajos y libélulas europeas en peligro • El cambio climático amenaza a mariposas, escarabajos y libélulas ... • Apuntes de sociedad • Libélulas, escarabajos y mariposas están en peligro de extinción ... • Los coleópteros, las mariposas y las libélulas en peligro de ... • Un ejemplar de mariposa monarca. • Alerta roja por disminución de mariposas en Europa • Mariposas europeas corren peligro • En riesgo de extinción mariposas, escarabajos y libélulas de UE • Libélulas, escarabajos y mariposas en peligro por culpa del cambio ... • Mariposas, escarabajos y libélulas amenazados de extinción en Europa • Menos mariposas y libélulas • En peligro de extinción mariposas europeas • Alerta roja por disminución de mariposas en Europa
Web page traffic	Number of visits to the web page	10,000		Until 22 December 2010 there had been 14950 pageviews. It is expected to get over 15000 by the end of 2010.

Appendix 1 / International Symposium Reading 26-28 March 2010

Overview of the program of the International Symposium on butterflies at Reading, 26-28 March 2010.

More information on the symposium can be found on

<http://www.butterfly-conservation.org/text/2751/symposium.html>

The 2010 Target and beyond for Lepidoptera			
<i>6th International Symposium of Butterfly Conservation (UK) Reading, 26th-28th March 2010</i>			
Presentation	Title	Author(s)	Proceedings
Session 1	2010 Assessments for Lepidoptera		
Keynote	Countdown 2010	Sebastian Winkler	
Keynote	How are butterflies doing in Europe?	Chris van Swaay , A. Cuttelod, I. Wynhoff, A.J. van Strien	
	British butterfly distributions and the 2010 target	Jim Asher , R. Fox, M.S. Warren	x
	The development of butterfly indicators in the United Kingdom and assessments in 2010	Tom Brereton , D.B. Roy, I. Middlebrook, M. Botham, M. Warren	x
	Long-term population studies of British macromoth	Jason Chapman , D.R. Brooks, I.P. Woiwood	
	Moth Count: Recording moth for conservation in the UK	Richard Fox , L. Hill, Z. Randle, S. Anders, L. Wiffen, M.S. Parsons	x
	The state of the Dutch larger moth fauna	D. Groenendijk , W. N. Ellis	x
	Lepidoptera Conservation in the North America: providing context.	S.H. Black , S. Jepsen, M. Vaughan	
	Status of butterflies in Hungary	Szabolcs Sáfíán	
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Appendix 2 / Conference on Regional Cooperation in Biodiversity Protection: Lessons from Two Regions; 22-23 February 2010, ASEAS, Singapore

Saving biodiversity – the Contribution of European Policy

Paper by Sue Collins, Butterfly Conservation Europe and European Habitats Forum

Introduction

This paper summarises the importance of biodiversity and ecosystem functionality and resilience. It reviews the European Union (EU) Strategy for halting the loss of biodiversity across Europe and draws out lessons that may be of interest to policy makers and scholars elsewhere in the world.

It summarises the institutional background to EU biodiversity policymaking and the instruments available for policy implementation, particularly the EU Biodiversity Action Plan (BAP). It highlights some economic and social drivers of biodiversity loss, including the sectoral pressures on land use. In particular, it explores the case of forestry policy and implementation.

The paper looks ahead at the post-2010 biodiversity policy debate and the challenges and the opportunities that face us as we seek to stop biodiversity losses and support recovery of biodiversity and ecosystem resilience.

Background

The Importance of Biodiversity and Ecosystem Resilience.

Why does biodiversity loss matter? Biodiversity is the variety of life – the plants, animals, genes, and micro-organisms which interact and make up our complex ecosystems. People both depend upon and are part of these ecosystems. Our actions exert a major influence on them. The functioning and resilience of global and local ecosystems underpin economic and social welfare for this generation and for those to come.

Vital ecosystem services include climate regulation, water provision, food production, and pollination. Biodiversity also matters to people emotionally - contact with nature and recreation in green areas is important to people's mental and physical wellbeing. Biodiversity is ethically important – we have a moral duty to look after the planet, respecting and caring for its astonishing and beautiful biodiversity and sustaining it in perpetuity.

The Challenge

Much more needs to be done to achieve this. Biodiversity in Europe is already under great pressure and this is set to increase further as population expands and unsustainable production and consumption grows. The Millennium Ecosystem Assessment in 2000 showed that Europe's ecosystems had undergone more human induced fragmentation than those of any other continent. Urbanisation has increased and intensive land use and overfishing have damaged and degraded biodiversity and ecosystems. As a result, almost half our wildlife is in serious decline. Radical change and a new approach to economic policy is required if losses are to be reversed. This task is urgent. Europe's high

consumption is wasteful and adversely affects biodiversity around the globe. Imports of raw materials and goods from elsewhere often drive unsustainable production and damage to ecosystems beyond Europe.

The Institutional Background to European Biodiversity Policy.

EU Level Processes

The continent of Europe has 40 States, 27 of them members of the European Union (EU). Through Treaties, EU Member States have given the EU competence to set policy and legislate in key areas. These include environmental, agricultural and fisheries policies. EU laws (Directives) must be transposed into national legislation in each EU Member State and implemented there. Enforcement and compliance are monitored and infractions can be penalised. EU Member States, through the Council of Ministers, agree an annual budget for the EU, funded by some tax revenues and spent to facilitate implementation of EU policies. The EU and Member States are signatories to the international Convention on Biodiversity (CBD) and other environmental conventions, including the Ramsar Convention.

EU Member State Institutions

Many European countries have statutory bodies with responsibilities to deliver nature conservation on the ground. These bodies usually have practical and scientific expertise. Many countries have Environmental and Sustainable Development Advisory Councils as well, who give scientific or policy advice to their governments. In practice, the decisions of spatial planning authorities and the actions of landowners and occupiers have a profound effect on biodiversity outcomes. Some key policy areas affecting biodiversity, including fiscal policy, forestry policy and land use planning, remain within the competence of individual EU Member States and the EU has no power to legislate in these areas. In addition, the principle of subsidiarity applies in all areas of European policy. This means that action should be taken at the lowest, most appropriate institutional level, closest to the problem to be resolved. Countries across Pan Europe, both EU and non-EU, also co-operate on environmental issues through the Council of Europe.

The Voluntary Sector

Non Governmental Organisations (NGOs) are very active in Europe, with millions of members. Some own and manage land and work with farmers and foresters. Many also influence policy and promote good implementation. The European Habitats Forum is a coalition of 17 European Environmental Networks, working together to influence European biodiversity policy and promote integration of biodiversity goals in EU sectoral policymaking and practise.

The Main EU Instruments for Saving Biodiversity.

Legislation

The corner stones of EU biodiversity policy are the EU Habitats and Birds Directives. These provide for legal processes, implemented in each Member State, supporting the designation, protection and sustainable management of

Special Areas of Conservation (SACs) and Special Protection Areas for Birds (SPAs). Together with supporting measures, these protected areas make up the Natura 2000 Network. The objective is to secure favourable conservation status for some 220 habitats and over 1000 species of European importance across the biogeographic zones of Europe. Around 24,000 sites have been designated so far and collectively they cover one fifth of EU territory. The Natura 2000 network is helping to conserve both rare and more common species and their habitats and makes a vital contribution to securing the health of Europe's ecosystems.

Sustainable Land Management

The Natura 2000 Network and nationally protected wildlife areas are essential to sustaining biodiversity but they are not sufficient. More sustainable land, water and sea use and management are essential if we are to halt the loss of biodiversity and secure recovery of well functioning and resilient ecosystems. Mosaics of well managed habitat at the landscape scale are needed. The EU has recognised this imperative in the commitment, in the last decade, of Heads of Government, to the political goal of halting the loss of biodiversity by 2010. They have willed some of the means to do this through the EU Biodiversity Strategy and the EU Biodiversity Action Plan (BAP), and through other legislative, financial and administrative instruments.

Trans-boundary Cooperation

One of these instruments is the EU Water Framework Directive. This is a major piece of EU legislation, which is implemented in Member States and should, over the next two decades, lead to improvements in ecological water quality. It is innovative and potentially far reaching in its governance provisions, requiring the setting up of River Basin Management plans, involving cooperation between competent authorities across local, regional and national boundaries where the river catchments cross these. Preserving the structure and function of soil and its microbial biodiversity is of considerable significance and it is a matter of regret that EU Ministers have so far not been able to agree to adopt the EU Commission's proposed Soil Framework Directive.

EU Biodiversity Action Plan (BAP)

The latest version of this plan was launched in 2006. It has 10 objectives and 4 supporting measures, and provides for the beginnings of a biodiversity monitoring system. The plan covers 4 main policy areas:

- 1) Biodiversity in the EU
- 2) EU and Global Biodiversity
- 3) Biodiversity and Climate Change
- 4) The Knowledge Base

The Plan has 10 objectives. These are:

- 1) Safeguarding the EU's Most Important Habitats and Species.
- 2) Conserving Biodiversity in the Wider EU Countryside
- 3) Conserving Biodiversity in the Wider Marine Environment
- 4) Integrating Biodiversity into EU Planning and Development
- 5) Reducing the Impact of Invasive Alien Species.
- 6) Strengthening international governance
- 7) Strengthening support for biodiversity in EU external assistance
- 8) Reducing substantially the impact of international trade.
- 9) Supporting biodiversity adaptation to climate change
- 10) Improving our knowledge base

Supporting measures cover:

- 1) Ensuring adequate financing.
- 2) Governance – strengthening EU decision – making.
- 3) Building partnerships
- 4) Building public education, awareness and participation

Finally, the plan includes monitoring, evaluation and review of progress and reporting on biodiversity outcomes to 2010 and beyond.

The Main Drivers of Biodiversity Loss

The main causes of biodiversity loss, over the last few decades in Europe, have been changes in land and water use and management, leading to loss of habitat area, reductions in habitat quality and fragmentation, culminating in species loss or degradation. Pollution, acidification, soil erosion, fires and land abandonment have all played a part; as has over-fishing. More recently, climate change is beginning to have an adverse effect and is predicted to be a bigger threat in future, particularly in mountain areas, as temperatures rise.

The main drivers of the adverse land use changes have been economic and social. They include urbanisation; increased personal and corporate consumption and production, intensive farming, over-fishing offshore and plantation forestry. Sectors having a highly significant effect on biodiversity include agriculture, forestry, offshore fishing, port and harbour development, energy production, transport, tourism and recreation. Coastal management and river and flood management all affect biodiversity and ecosystem health and resilience. The effects of land and water management can be either positive or negative, depending on the nature conservation quality of the land affected and the way in which operations are conducted.

The Importance of Scale

The spheres of influence of municipalities and the bodies regulating sectoral activities are often at different scales from those needed to manage the environment effectively. This is a challenge whenever natural resources are exploited or need to be safeguarded. Rivers can run through several countries; coastal cells, with their associated dynamic, geomorphological processes, often extend beyond local administrative boundaries; airborne pollutants are no respecters of lines on maps and often activities in one location can affect nature in adjacent areas. So, many problems and threats to wildlife and habitats will often need a combination of measures and may depend on trans-boundary cooperation and regulation.

Engaging Stakeholders

Involvement of landowners and managers and other stakeholders in developing solutions has proved important. The economic, fiscal and regulatory framework set by national governments and the EU is the context within which individuals and businesses make their decisions. If everyone can use the environment as a free good, then there is an incentive to consume or damage it, rather than safeguard it.

Nature is Undervalued

Traditional methods of assessing investments, based on cost benefit analysis, cannot cope well with goods that are non-quantifiable in monetary terms. The hidden values of nature are therefore not taken into account. This leads to over exploitation. Costs born by society, in the shape of habitat or species losses, or degradation in environmental quality, like loss of tranquillity or destruction of the beauty of a natural landscape, are negative externalities. Taxes or charges

can be introduced, to reflect these externalities, but such measures are often difficult to design effectively, are unpopular and challenging for governments to introduce and sustain.

Recognising the Benefits of Ecosystem Services

More recently, some economists and policy makers have begun to recognise the value of the services that ecosystems provide and to articulate a new economic case for their protection and recovery. Development of such an approach is still outside the mainstream. But it has the potential to shift the terms of the debate. We need to move away from thinking that looking after nature is just a cost and recognise that destroying it involves losing many benefits, some of which may be irreplaceable and underpin long term human wellbeing. There is however huge inertia in financial and economic policymaking. This mitigates against such a paradigm shift being made quickly enough to prevent further serious losses of biodiversity and ecosystem functionality and resilience.

Implementation of EU Biodiversity Policy

The EU Commission carried out a mid-term assessment of the implementation of the EU BAP in 2008. They looked at progress at EU level and in EU Member States. The assessment was based on reports from Member States; on results of monitoring of biodiversity outcomes within Member States under Article 17 of the EU Habitats Directive (evaluated by the European Environment Agency Topic Centre on Biodiversity); on progress against the biodiversity indicator set (SEBI 2010) coordinated by the European Environment Agency (EEA); and it was informed by independent analysis by contractors to the EU Commission.

Progress towards EU Biodiversity Target

The overall conclusion of the mid-term assessment was that the "EU is highly unlikely to meet its 2010 target of halting biodiversity decline". Intensive efforts were needed over the following two years to even come close to it. Monitoring by Member States showed that 50% of species of European importance and possibly up to 80% of habitat types of European conservation interest were in unfavourable conservation status. Declines of grassland butterflies have been severe and farmland birds show serious declines. Alien invasive species are increasing, causing both economic losses and ecological damage. On the positive side, some carnivore and other species show encouraging positive trends and research shows that implementation of the EU Birds Directive has made a significant difference in halting the decline of some of Europe's most threatened birds.

Recent analysis shows that, unless there is a change in the way biodiversity and ecosystems are valued in economic decision making, further serious declines will occur, reaching an estimated welfare loss (due to the loss of ecosystem services) of 6% of global GDP per annum by 2050.

EU Biodiversity Policy Implementation – the Case of Forestry

EU Forests and their Biodiversity

Forests and other wooded land occupy about 40% of the EU's land area (some 160 million hectares). Losses of forest area to infrastructure and urban uses have been offset by new tree planting in the EU over recent decades with a slight overall increase in forest area. There has, however, been a change in the make up of the forests, with new plantations of faster growing tree species; some of these, particularly in Spain and Portugal, have been planted on

grassland which was formerly extensively grazed and of high nature value. This has led to losses of biodiversity. Large, old forests are important for wildlife. Only about 5% of European forests are more or less undisturbed by man. The rest are semi-natural. Many are fragmented, reducing their quality as habitats for wildlife.

The EEA has defined 14 forest types in Europe. These include Boreal, Alpine and Mediterranean coniferous, Acidophylous oak, beech, mire and swamp and floodplain forests. The threats to European forests and their biodiversity include felling, fire, deforestation, inappropriate planting, biomass planting, alien invasive species, long range air pollution, climate change and inappropriate management.

Halting Global Deforestation

The Report by Pavan Sukhdev on The Economics of Ecosystems and Biodiversity (TEEB) has identified, as one of its four urgent strategic priorities, "to halt deforestation and forest degradation, first, as an initial part of climate change mitigation and adaptation focussed on 'green carbon' and secondly, to preserve the huge range of services and goods forests provide to local people and the wider community."

Action to halt the loss of forest biodiversity

The EU's biodiversity policy is framed to anticipate, prevent and attack the causes of biodiversity loss. It aims to halt the loss of biodiversity by 2010 and secure habitats and species at favourable conservation status. Looking at the case of forests, as an example of the implementation of the EU's Biodiversity Strategy and Action Plan, we can see activities that address several of the objectives and the supporting measures of the BAP.

Protected Areas of Forest and Wooded Habitats

There are many forests and wooded habitats designated as Natura 2000 Special Areas of Conservation, under the EU Habitats Directive. These make an important contribution to implementing BAP Objective1– to safeguard the EU's most important habitats and species. Almost 30% of designated Natura 2000 sites comprise forest habitats. Another 30% contain some woodland elements and related species. These protected areas are host to many species of European importance, including birds, mammals, plants, bryophytes, fungi, lichens, butterflies, moths and many other invertebrates, like beetles, especially those that live on dead and decaying wood. Often European forests and woods have open patches of other habitats within them, including wet mires, rivers and grassy rides. Protecting and managing this mosaic is important.

Conserving Woodlands and Restoring Habitats in the Farmed Landscape

Many small woodlands are scattered around the countryside and the farmed landscapes of Europe. Safeguarding and sustainably managing them is a key part of BAP Objective 2 – conserving biodiversity in the wider EU countryside. Management of such woods, often for their wildlife value, is facilitated under the EU Rural Development Programme (RDP), with annual payments to landowners, related to the area of land held. Reversing the fragmentation of woodland and other wildlife habitats is essential for the longer term. Landscape scale approaches to habitat protection and restoration are going to be of increasing importance over the next few years.

Policy Integration

Integration of biodiversity concerns into mainstream forestry policy – part of BAP Objective 4 - was envisaged in the EU Forest strategy, agreed in 1998. This strategy encourages a participatory and transparent approach involving all stakeholders, while recognising the wide variety of ownership regimes within the European Union and the important role of forest owners. The review of implementation of the Forest Strategy observed that good governance was essential for the protection and sustainable management of forests. It called for better cross-sectoral cooperation. It noted that it was becoming increasingly difficult to achieve economic, social and environmental objectives simultaneously in an open and global marketplace.

EU Forest Action Plan

Practical impetus was given to implementation of the EU Forest Strategy in the EU Forest Action Plan of 2006. This was designed to improve coordination and coherence between different EU level actions and with Member States' Forest policies. The EU Forest Action Plan has 4 main objectives:

- 1) To improve long-term competitiveness
- 2) To improve and protect the environment
- 3) To contribute to the quality of life
- 4) To foster coordination and communication

Environmental Assessment

The BAP's fourth objective depends on action at national, regional and local levels across Europe as it aims to minimise or prevent adverse effects on biodiversity as a result of regional or territorial development. Money from Europe is available to co-finance such developments and both the Nature Directives and the EU Environmental Impact Assessment Directive require early consideration of alternative projects and design of measures to avoid negative impacts. Research shows that these assessments are often conducted poorly or too late to be effective.

Investment at regional level

Some money has been invested directly in nature conservation projects, including in urban areas e.g. for re-establishment of green areas and there has also been some investment in landscape conservation measures as offsetting compensation for damage done elsewhere through infrastructure projects. But nature conservation spend is a tiny fraction of overall EU Regional Development spending – around 2%.

Invasive Alien Species

The impact of alien invasive species is quite a serious threat to European forests. Oak moth damage, Dutch Elm disease, ink diseases, Cyprus cancer and ginger lily invasions of old Madeiran forests have all damaged or killed trees and degraded the quality of woods and forests. Measures to prevent or control the spread of invasives are currently inadequate and the damage is increasing. The proposed EU Directive on Invasive Alien Species – to implement BAP Objective 5 - should help to mitigate these problems but only if binding commitments are made and action is properly funded and implemented. The challenges here are considerable.

International Governance for Biodiversity

Strengthening international governance for biodiversity is the focus of BAP Objective 6. The EU supported integration of the commitment to halt biodiversity loss into the Millennium Development Goals. The TEEB report has shown that it is the poorest who suffer most from the degradation and loss of ecosystem services. The goals of poverty reduction and safeguarding the environment need to go hand in hand.

At the Convention on Biological Diversity (CBD) 9th Conference of the Parties (COP 9) in Bonn in 2008, the EU took decisions to help strengthen the implementation of the Convention. In the period 2007-10 a total of over 100M Euros was earmarked by the EU for promotion of sustainable forest management and implementation of the initiative on Forest Law Enforcement, Governance and Trade (FLEGT).

The Need for Binding Agreements to Protect Forests

Action to strengthen and improve governance of forests is taking place across pan Europe. The Ministerial Conference on the Protection of Forests in Europe (MCPFE) is a political forum, set up in 1990, for dialogue on European forestry issues among some 40 European countries. Non-European countries and international organisations participate as observers. Recently, the MCPFE has explored the case for a binding agreement on forest protection and management. This would build on good voluntary work done over the last 20 years; binding agreement is being considered now because the threats to the biodiversity of forests are increasing.

EU External Assistance

The EU aims, with BAP Objective 7, to strengthen support for biodiversity in EU external assistance. Biodiversity projects focussed on particular geographic areas have amounted to about 75m Euros pa, including support to the ASEAN Centre for Biodiversity. In Central America, important forest programmes have been funded in the Honduras and Ecuador. About 20% of EU and MS development aid has been biodiversity-related and this proportion has increased since adoption of the BAP. Formidable challenges still remain in increasing the priority given to this, both in partner countries and in the EU aid community. Furthermore, much greater commitment needs to be made to carrying out effective environmental impact assessments, at both strategic and project levels. This is essential to prevent or minimise negative impacts on biodiversity and ecosystems as a result of aid projects funded by the EU and Member States.

The EU's Ecological Footprint

According to the EU's mid term assessment of the BAP, (SEC (2008) 3044), "The ecological footprint of EU countries, which directly measures the extent to which Europe's resource use can be replicated globally, is increasing while the EU's biocapacity has decreased. The resulting ecological deficit means that biological resource use and waste emission is about 2.5 times greater than the biological capacity available within Europe, showing that Europe cannot sustainably meet its consumption demands from within its own borders." Reductions in unsustainable consumption are essential if European citizens are to reduce their adverse effects on biodiversity across the globe.

International Trade Rules and Combating Illegal Logging

It is clear that, although BAP Objective 8 is to reduce substantially the impact of international trade on global biodiversity and ecosystem services, this is far from being achieved. Limited progress has been made on wildlife trade through

active engagement in the CITES Convention. Trade is a crucial issue for forests around the world. The EU Forest Law Enforcement, Governance and Trade initiative (FLEGT) is important here.

Action to combat illegal logging, regarded as a vital first step in securing sustainable management of forests, has started, but only on a voluntary basis. Support for more sustainable consumption, particularly of wood products, has increased with some EU Member States instituting specific public procurement measures. These promote forest certification and are designed to ensure timber and timber product imports are from legal and sustainable sources. Some EU private sector timber trade federations have made commitments through Codes of Conduct to eliminate illegally harvested timber from their supply chains and some major banks have put policies in place which seek to ensure clients are not supporting illegal logging but there is still a long way to go.

Biodiversity and Climate Change

BAP Objective 8 addresses the links between biodiversity and climate change. There is increasing recognition of the important role that biodiversity and ecosystems can play in helping to limit atmospheric greenhouse gas concentrations because forests, peat lands and other habitats store carbon. Healthy, resilient ecosystems can also assist adaptation to inevitable climate change. Adaptation of forest management will be necessary as understanding increases and temperatures rise. The adverse effects on climate change of deforestation are increasingly being advanced to support protection of forested landscapes throughout Europe and beyond.

The Copenhagen Climate Accord

The EU's overall climate change objective is to limit the rise in global temperatures to 2 degrees centigrade. To do this the aim is to reduce the EU's greenhouse gas emissions by at least 20% of their 1990 levels by 2020. The Accord reached at the UN Climate Conference in Copenhagen in December 2009 has some significant elements, but is not legally binding; that challenge remains for the Mexico meeting next year. Nations agreed to try and keep the maximum temperature rise to below 2 degrees centigrade and to list developed country emission reduction targets for 2020 and mitigation action by developing countries planned for 2020. Funding of \$30 billion for short term actions to 2012 was agreed. Long term funding of \$100 billion annually by 2020 was envisaged. Mechanisms to support technology transfer and forestry were also agreed.

Reducing Emissions from Deforestation and Degradation (REDD+)

Heads of Government referred to 'differentiated responsibilities and respective capabilities' of different countries. They recognised 'the crucial role of reducing emissions from deforestation and forest degradation and the need to enhance removal of greenhouse gas emissions by forests'. They agreed 'on the need to promote positive incentives to such actions through the immediate establishment of a mechanism, including REDD plus, to enable the mobilisation of financial resources from developed countries'. Reference <http://unfccc.int/2860.php>. They recognised the importance of promoting sustainable management of forests and co-benefits, including biodiversity, that may complement the aims and objectives of national forest programmes and relevant international conventions and agreements. Fine words now need to be turned into actions on the ground.

Climate Adaptation Strategies

So far, there is little evidence that significant biodiversity considerations are included in national climate adaptation strategies in EU Member States, but research on impacts is underway. The Secretariat of the Convention on Biological Diversity (CBD) has recently published an ecosystems report on 'Forest resilience, Biodiversity and Climate Change'. This concludes that the capacity of forests to resist change, or recover following disturbance, is dependent on biodiversity at multiple scales. This is important as the resilience and stability of forest ecosystems are linked to the permanence of carbon stocks.

Strengthening the Knowledge Base

It is accepted that the knowledge base for biodiversity conservation needs to be strengthened – BAP Objective 10. The EU's Research Framework Programmes (FP) have supported several projects. For instance, a project funded under FP7 is assessing palm harvest impacts in tropical forests. Examples of good practise in European forest management have been studied under the EU LIFE programme and documented in recent EU LIFE publications, including the case of the ancient, mesophytic deciduous Bialowieza forest in Poland on the border with Belarus. The EEA concluded, in a recent Report, that much more knowledge of forest ecosystems and forest biodiversity was still required.

The Economics of Ecosystems and Biodiversity

Measures to enhance the science – policy interface are under discussion and crucially work is underway to explore the economics of ecosystems and biodiversity (the TEEB Study). Under the lead of Pavan Sukhdev this study is showing the long term costs of 'business as usual' and has developed guidance for policy-makers and others on a methodological framework for the valuation of ecosystems services, as a contribution to the Millennium Development goals. It could be argued that many biodiversity assets and intact, well functioning ecosystems are irreplaceable and so should be highly valued. They could also be assigned a very low or negative discount rate in cost benefit analyses as they will become scarcer in future. Subsequent generations will be even more dependent on them and their associated ecosystem services, than current generations are.

Europe's Natural Capital is diminishing at an alarming rate. This needs to be measured and recorded in National Accounts alongside GDP, so that decision makers realise the costs of not looking after biodiversity and ecosystems, and start to place a higher value on them, recognising their fundamental importance to human wellbeing.

Funding

All are agreed that sufficient funding is essential to sustain and recover biodiversity and ecosystem health. EU financing of sustainable forest management is mainly through the EU Rural Development Programme (RDP) amounting to 5 billion Euros in the period 2000 – 2006 (almost 10% of the total rural development budget). A further 9 or 10 billion Euros may be spent in the period 2007 – 2013. This support is available for the first afforestation of land and the first establishment of agri-forestry systems on agricultural land. Natura 2000 payments can compensate private forest owners for costs incurred and income foregone. Support is also available for actions to restore and protect forestry potential.

Support for Bioenergy Crops

Financial support is also available under the RDP for planting of bioenergy crops including fast growing trees. These can adversely impact biodiversity if planted on semi-natural habitat of wildlife value. Recognition of the risks has led to proposals for sustainability criteria for biofuel production in the new EU Directive on the Promotion of Energy from Renewable Sources. NGOs have called for these standards to be binding, not voluntary.

Monitoring of Biodiversity

Finally, the EU BAP includes provisions for monitoring, evaluation and review. A project SEBI 2010, led by the European Environment Agency, has drawn up a list of 26 biodiversity indicators that help with assessing progress towards biodiversity targets. The Farmland Birds Indicator was developed by the RSPB and BirdLife International, with data to populate it collected by a network of volunteers across Europe. Results show that farmland birds have declined significantly since 1990.

Butterfly Conservation Europe, a network of experts from 31 countries across Europe, has developed a European Grassland Butterfly Indicator. Volunteers from several countries have collected data annually in accordance with a standardised transect walk methodology, on butterfly abundance. Results show even steeper declines than farmland birds and are an indicator of the loss of grassland quality and extent and the threatened state of Europe's semi-natural grasslands. A European Woodland Butterfly Indicator is planned when funding becomes available. This will report on the state of butterflies of forest canopies and those inhabiting woodland edges and open glades.

The Role of NGOS in Saving Biodiversity

Large and influential Environmental NGOs, active in Europe, include Birdlife International, WWF, the European Environmental Bureau (EEB) and the IUCN. All have effective offices in Brussels and regularly carry out research, set up learning events and lobby Commissioners, officials and Parliamentarians on the full range of biodiversity and integration issues, with a number of successes. For instance BirdLife International and their UK partner the RSPB have campaigned hard for Common Agriculture Policy Reform. The EEB is promoting new thinking on Green Infrastructure and IUCN facilitates the Countdown 2010 initiative, which is working with about 1000 partners to stimulate action to halt the loss of biodiversity. The Institute of European Environmental Policy (IEEP) is a highly respected independent body, carrying out research and advising the EU Commission and others, particularly on sectoral integration.

Smaller environmental NGOS also play a part in seeking attention for particular species or contribute data to inform evaluation of policies. For example, Butterfly Conservation Europe (BCE), has championed the development of butterfly monitoring and compiled the European grassland butterfly indicator. It has been a partner in the EU sponsored research project ALARM that has analysed the likely impact of different climate scenarios on butterflies and published an atlas showing likely losses and population shifts as the planet's atmosphere warms up.

Plantlife International has developed a Strategy for Plant Conservation that has been adopted within the framework of the CBD. WWF has been particularly influential in lobbying against illegal timber logging and unsustainable and illegal felling activity. FERN campaigns for greater environment and social

justice, with a focus on forests and forest people's rights in the policies and practices of the EU.

Many NGOs also work at local level, protecting and sustainably managing areas of importance to wildlife and influencing thinking and action at municipality or national levels.

Post 2010 Biodiversity Policy

A New Target for the Recovery of Biodiversity

In April 2009, the European Habitats Forum called on EU Heads of Government to commit to a new target for 2020 which goes beyond halting the loss of biodiversity and aims for recovery of characteristic species and habitats and well functioning ecosystems and achieves synergies between sustaining biodiversity and mitigating and adapting to climate change. They reinforced these calls at the EU Presidency Conference on Post 2010 Biodiversity Vision and Targets, in Madrid, in January 2010.

EHF considers a new target should meet the following criteria:

- be global but with specific EU sub-targets and measurable milestones to track progress;
- have a timeline of 2020 for the goal and a longer term vision for 2050
- articulate the value of biodiversity for human wellbeing (supporting, provisioning, regulating and cultural services) as well as its intrinsic value;
- highlight the critical role of biodiversity in mitigating and adapting to climate change;
- convey a sense of urgency;
- stress the importance of equitable sharing of benefits from biodiversity;
- highlight the importance of mainstreaming biodiversity into all land and sea use activities;
- should be measurable (i.e. have a baseline and robust set of indicators)
- should speak in clear and simple terms to everybody.

Specific targets/indicators for the EU should include:

- **Spatial targets/indicators** (e.g. % of land and sea under biodiversity protection, % of Protected Areas as wilderness reserves, % of farmland managed for biodiversity, no further losses of High Nature Value farmland, increased access to nature close to where people live);
- **Species population targets** (e.g. % of species of Community Interest in favourable conservation status or improving compared to 2008, % increase in the Common Bird and Grassland Butterfly Indices, % improvement in the Red List Index, fish stocks restored to safe biological levels);
- **Habitat targets** (e.g. % of habitats of Community Interest in favourable conservation status or improving compared to 2008)
- **Improvements in ecosystem functionality and resilience** (eg increases in habitat connectivity at a landscape scale)
- **Clear targets for sectoral and financial contributions** to biodiversity recovery

NGO Asks for a Post 2010 EU Biodiversity Policy

- 1) Future biodiversity policy of the EU must **strengthen and build on existing legislative standards, action plans and achievements**, especially on the Birds and Habitats Directives and the Natura 2000 network. Implementation and enforcement of these and other tools, including the Water Framework, Marine Strategy, Environmental Impact Assessment, Strategic Environmental Assessment, Environmental Liability and other Directives must be significantly improved.
- 2) A strengthened EU biodiversity policy can only work when it is part of a **move to a new economic policy model** which recognizes both the intrinsic and functional/service values of biodiversity, the irreplaceability of some natural assets and the urgent need to value them more adequately in economic decision making. Environmentally damaging incentives must be abolished and EU and Member States' regulatory and fiscal policies should be reformed to support existing high nature values, minimize biodiversity losses and provide incentives for restoration and recovery.
- 3) The **EU must reduce its ecological footprint across Europe and the world**. To this end, it is essential to define sustainability thresholds for production, consumption and the use of resources, energy and space to ensure a reduction on the overall pressures on the environment across Europe and globally.
- 4) Urgent concerted action to **reduce greenhouse gas emissions and invest in climate change adaptation measures which avoid damage and sustain biodiversity** is vital. In this context, the EU has to promote limits to overall energy use, help build stronger links between the UN Conventions on Climate Change and Biodiversity, promote ecosystem based adaptation and support strong tools (REDD) and targets to stop deforestation and forest degradation.
- 5) Mainstreaming biodiversity remains a key challenge and better governance is needed. **All sectoral policies affecting land and sea use need to be reformed to support the resilience of ecosystems and contribute to the restoration of biodiversity**. The Common Agricultural Policy has to be transformed into a sustainable land use and rural development policy, to reward land-users for delivering public goods for public money and to maintain and restore High Natural Value farmland and forests. The Common Fisheries Policy needs to be reformed to reduce fishing pressure and restore all fish stocks to safe biological levels. The contribution of all sectors to damaging, sustaining and restoring biodiversity should be systematically measured, monitored and reported.
- 6) The EU must significantly **increase funding for investing in biodiversity and ecosystems** and for the delivery of the Birds and Habitats Directives and other relevant legislation. For the Natura 2000 network several billion euros are necessary from the EU and Member States' budgets every year. **Monitoring of biodiversity must be funded**. In addition, more must be invested by the EU, governments and companies in preventing damage and conflict and where necessary also restoring biodiversity, helping biodiversity adaptation and in strengthening ecosystem resilience across Europe. Increased investment is needed to protect biodiversity and ecosystems in the EU's outermost regions and overseas territories and in developing countries across the world.
- 7) The **EU should urgently adopt new legislation in 3 areas** - to reduce the threats and damage from invasive alien species; to conserve soil resources; and to safeguard the biodiversity of the outermost regions of the EU.

- 8) **An EU sustainable land use strategy should be developed.** And Member States need to implement more strategic and coherent spatial planning systems that give greater recognition to the importance of ecosystem integrity and functionality and ensure that cumulative impacts of development are sustainable. More habitat mosaics, increased connectivity at a landscape scale and investment in green infrastructure are all needed.
- 9) The EU and national governments must start immediately and at a large scale to **mobilize action and communicate, positively and effectively, the importance and benefits of biodiversity and ecosystems** to citizens, media and economic stakeholders. This must highlight the contribution of the Natura 2000 network and the links between unsustainable consumption, loss of biodiversity and ecosystem health and how this threatens the wellbeing of people and the planet.

Reflections and Conclusions

Some of the lessons that might be drawn from the experience of EU biodiversity policy development and implementation are summarised below.

1. It is vital to have Heads of Government commitment to a goal to halt loss and support recovery of biodiversity. Without such explicit commitment the formidable challenges involved would be even harder to overcome.
2. A Strategy is needed that addresses the drivers of biodiversity loss and commits to the necessary, timely action to reform policies and processes to reduce the drivers and the pressures on biodiversity.
3. Binding measures are needed to protect areas of high nature conservation value and important species populations and to set standards for sustainable management of land, water and marine resources and to regulate biofuel production.
4. Involving landowners, managers and other stakeholders in dialogue about the importance of biodiversity and how to safeguard it on their land is essential to success.
5. Research on the impacts of land use and management practices is essential to design of regulatory procedures and mitigation measures.
6. Monitoring and reporting on the state of biodiversity is crucial to check on the effectiveness of policies and implementation.
7. NGOs and statutory nature conservation bodies with resources and expertise can play a vital role in securing policy reforms, developing good practice and monitoring biodiversity outcomes.
8. All citizens need a better understanding of our dependence on biodiversity and ecosystem health and what needs to be done to sustain and recover it. More effective communication of these messages is vital.

Sue Collins
European Policy Advisor, Butterfly Conservation Europe
Chair Working Group of European Habitats Forum on Post 2010 Biodiversity Policy

31 January 2010

Appendix 3 / Policy Paper from Butterfly Conservation Europe on EU Common Agricultural Policy Reform

The Effect of the Agriculture Sector on Butterflies and the Need for Reform of EU Common Agriculture Policy

Paper by Sue Collins, Director of Policy, Butterfly Conservation Europe and Simon Spencer, Chair, European Interests Group, Butterfly Conservation

3/06/10

Executive Summary

This paper reports on the declines in grassland butterflies across Europe and argues for reform of the EU Common Agriculture Policy to support recovery of biodiversity in line with the renewed commitment of EU Heads of State. Declines in the quantity and quality of extensively managed grasslands, due to intensification or abandonment, need to be reversed. Reforms of the CAP to ensure public money delivers public goods, which are under supplied by the market, is urgently required. A new scheme to support the sustainable management of High Nature Value farming is essential.

The Impacts of Agriculture on Butterflies and other Species

Introduction

Agriculture policy and practice has a profound effect on Europe's biodiversity. Farming is the land use across some 45% of European territory. The diverse ways in which farmers manage their land and other resources can either harm biodiversity or sustain it. In some cases it can nurture wildlife recovery.

The adverse effects of intensive agricultural production can, unless high standards of environmental care are exercised, include habitat loss, nitrate and phosphate pollution of water, soil erosion, pesticide damage, excessive carbon emissions, destruction of landscape features, fragmentation of habitats, loss of species diversity and irreversible losses of natural value. On the other hand, low intensity, sustainable management of high nature value farmland is essential to the survival of many threatened species, especially grassland butterflies.

The decisions of individual farmers, in response to their personal and family circumstances, their values, the state and potential of their land, the regulations affecting their operations, their costs, the public funding provided and the market conditions, each affect the outcomes for biodiversity in their area. About one third of farmland across Europe consists of extensive grasslands of varying extent and quality. Some of it is of marginal value for

food production per se but by supporting biodiversity at multiple scales it provides other important ecosystem services, like pollination, climate regulation through carbon uptake and cultural and recreational services.

Background

Prime Butterfly Areas and the Importance of Extensive Grasslands

Butterfly experts across Europe have identified 431 Prime Butterfly Areas (PBAs), distributed among 37 countries and 3 archipelagos of the European continent. They cover 21 million hectares (1.8% of the European land cover) and several habitat types. Three of these are grasslands. (PBAs of Europe, Van Swaay and Warren, Eds 2003). Some areas of PBAs are protected within the Natura 2000 network; many others, including some extensively managed grasslands are not protected. The most important PBAs for butterflies of alpine and sub-alpine grassland are found in the Alps of France, Italy, Switzerland and Austria; and the Sierra Nevada in Spain. Many of the characteristic species of these habitats are particularly threatened by predicted climate change, because of their small, high latitude ranges. (Climatic Atlas of European Butterflies 2008).

Dry, calcareous grasslands and Steppes, mainly occurring in Southern Europe and the Mediterranean region, are the most species rich habitat for butterflies in Europe. Butterfly species characteristic of humid grasslands are found in Central, Northern and Eastern Europe. Further integration of PBAs with the Natura 2000 network would be valuable. The way in which these grasslands are managed determines whether they continue to support viable populations of butterflies. Cutting frequency, grazing intensity, nectar availability nutrient status, land drainage, scrub encroachment, herbicides and pesticides and surrounding land use all affect biodiversity outcomes on these grasslands. (Van Swaay et al Eds 2009, in Grasslands of Europe).

Poor Conservation Status of Habitats linked to Agriculture

Every six years Member States are required to report on the implementation of the Habitats Directive (under Article 17) and assess the conservation status of listed habitats and species. The recent Article 17 Reports have been analysed by the EEA and show that the habitat types linked to agriculture, in general, have a worse conservation status with only 7% favourable, compared with 21% for non-agriculture habitats. There is some variation between regions, with no Member State reporting a habitat dependent on agriculture as favourable in the Atlantic region. Excluding Macronesia, which has very few habitats dependent on agriculture, the highest percentage of favourable habitats dependant on agriculture is in the Continental region with 9%, followed by the Alpine and Boreal regions which both have 7% favourable. (EEA European Biodiversity Topic Centre Article 17 Reports 2008).

There is a woeful lack of appropriate monitoring of habitat quality in the Mediterranean, despite the legal obligation of Member States to report, so conclusions about conservation status are difficult to draw for this region at this stage. This lack of compliance with statutory obligations is of considerable concern and much more investment in systematic and high quality biodiversity monitoring is required.

Losses of Semi-Natural Grassland adversely affecting butterflies

Despite European policy commitments to maintaining the area of permanent grassland, losses are mounting up. Conversion of pasture and grassland to arable production, biofuel crops and afforestation, with loss of wildlife and landscape quality, has continued. Ploughing or fertilisation of species rich grassland has damaged biodiversity, reducing its extent significantly and damaging its capacity to recover as a habitat. In addition, fragmentation of habitats is an increasing threat to butterflies, reducing their capacity to support viable butterfly populations, or act as reservoirs to re-colonise nearby

available habitat.

Ineffective Protection of High Nature Value Grassland

Under the EU Cross Compliance Regulations EU Member States are required to ensure that "land under permanent pasture is to be maintained"; however under EU legislation there is a general derogation which allows some decreases, provided they are not significant – defining significant as losses which exceeded 10% of a reference level, to be set by Member States themselves. The European Court of Auditors severely criticised the effectiveness of these arrangements in their recent Report (EU Court of Auditors 2009). They stated there was no scientific rationale for setting the 10 % figure.

Moreover, they reported that some Member States had set reference levels way below the actual extent of their grassland, as reported to Eurostat. This meant that a 10% decrease against the reference level, could in fact amount to a 30% decrease on the ground. So questions remain about the effectiveness of this device for protecting grassland of conservation value.

Declines in Grassland Quality due to Pressures of Abandonment and Intensification of Grassland

There have been serious declines in both the quantity and quality for biodiversity of semi natural grasslands across Europe. The loss of quality can be due to two different processes. One is the abandonment of grassland and hay meadows, with cessation of mowing or low intensity grazing. The other is over intensive management. This can be overgrazing with too high numbers of stock, either on individual farms or common lands; fertilisation, or ploughing and reseeded.

The Court of Auditors pointed out (Court of Auditors 2009) that the cross compliance condition on maintaining permanent grassland (which may achieve a positive environmental effect) does nothing to prevent this loss of quality happening, as the quality of the pasture is not addressed. Therefore decreases in the area of High Nature Value farmland could be 'compensated'

by increases in lower quality grassland without breaching the condition. They noted losses of semi natural grassland in German Lander and in several other Member States, including France, Italy, Hungary, Latvia, and Slovenia.

Serious Declines of Farmland Birds and Grassland Butterflies

Monitoring of farmland birds and grassland butterflies show serious declines in abundance over the period 1990 to 2009. The losses of grassland butterflies approach 60% over this period. Furthermore butterfly populations were starting from a low base in 1990, compared with many decades ago – there were significant declines in range and species abundance in intensively farmed areas of Europe in the decades running up to 1990. By comparison, farmland birds across the EU 15 have declined by 40% over the period 1980 - 2005 (Birdlife International 2008)

Adverse effects of Nitrogen Pollution on Plants and Butterflies

Monitoring of grassland butterflies also shows that as plant diversity decreases there is a change in species composition from butterfly specialists (which have very specific habitat needs) to generalist species (which can cope with a wider variety of conditions). (Van Swaay et al, 2006). Van Dyck et

al have reported that habitat specialist butterfly species, such as *L. tityrus*, are negatively affected by high nitrogen treatments (Fischer & Fiedler 2000) and increased soil nitrogen correlates with increased local extinctions of grassland butterflies in general (Ockinger et al. 2006). Considerable increases in the use of mineral nitrogen fertilisers – of the order of 35% - are predicted for new Member States in the period 2005 -2025; and phosphate and potassium use are expected to increase by about 52% and 41% respectively (EEA, European Environment Outlook, EEA 4/2005). This does not bode well for the survival of extensive butterfly populations in Central and Eastern Europe.

Losses of important Larval food plants and Nectar Sources

Planta Europa has reported that 21% of Europe's vascular plants species are classified by IUCN as threatened; 50% of Europe's vascular plant endemics are considered to be in danger of extinction and 64 have already become extinct. (Planta Europa Conservation Strategy, 2008). They consider the main factors leading to these declines to be habitat destruction; land use changes in agriculture and forestry; direct impacts by economic activities; and introduction of non-native species. Declines in the abundance and distribution of wild flowers across the landscape indicate a loss of abundance of nectar sources, which are of importance for butterfly densities (Schultz 2001; Quin et al. 2004). Reductions in the availability and density of larval food plants is also likely to critically affect the abundance of many butterflies (Thomas 2009)

Implications for other Invertebrates

Thomas has argued that what is happening to butterflies very probably holds good for many other invertebrates too (Thomas 2005, Phil Trans R Soc).

Since insects are important pollinators and a crucial part of the food chain for other species these declines are a cause for concern.

Decline in Livestock Farms and Effects on Butterflies

The EEA "IRENA" project for assessing the integration of environment into EU agriculture policy has compiled data from the EU-15 and it confirms the worrying trends observed at local and regional level. For instance, according to IRENA No.16, the share of land managed by mixed livestock farms declined from 16% in 1990 to 12% in 2000; and the EEA has noted that this trend is serious as such farms are frequently associated with high biodiversity and landscape quality. IRENA indicator No. 33 analyses agricultural impacts on Prime Butterfly Areas (PBAs) on the basis of case studies. This shows that 92% of all target butterfly species in Europe depend on agricultural habitats (extensive grasslands). Their conservation status is generally negative throughout most of the EU-15, with 43% of agriculture PBAs suffering from intensification and 47% from abandonment; with both impacts occurring simultaneously in 10% of agricultural PBAs. (EEA Indicator-based Assessment Report 2-2006)

The need for Protection, Recovery and Restoration

Intensification of land use, swathes of monocultures and loss of landscape features reduce the heterogeneity of landscapes, reducing their capacity to support viable populations of butterflies.

Restoration of more mosaics of habitat, introducing more open patches and rides in woodland and sustaining remaining semi natural grasslands could help to stem losses and could contribute to some recovery of butterfly populations.

What is the current state of EU agriculture policy in relation to biodiversity?

Under the current configuration of the EU Common Agriculture Policy (CAP), a bit less than 80% of the budget of some Euro 45 billions pa goes to Pillar One payments – mostly decoupled direct payments to farmers, related either to the area of land they own or to some historical baseline of past payments. These payments are effectively income support to farmers, subject to cross compliance conditions, which require respect of environmental legislation and avoidance of damage to e.g. landscape features.

Pillar Two includes a range of measures amongst which is payment for rural development and agri-environment measures, for delivery of public goods, which go beyond the statutory minimum. Together these measures receive about 22% of the CAP budget, (EU BAP Mid term Assessment, 2009) with the agri-environment measures, which deliver most for wildlife conservation, receiving only about a quarter of these payments.. It is not possible to determine the precise amount of CAP monies that go to supporting biodiversity outcomes, or High Nature Value farmland because of the way the figures are compiled and reported. As Birdlife International has pointed out

(Birdlife International New Challenges, New CAP, 2008), the influence agri-environment measures have on farmer decisions is dwarfed by the impact of Pillar 1 measures. Furthermore, some rural development measures can lead to loss of wildlife e.g. support to farm afforestation, can lead to trees being planted on grassland of High Nature Value, with significant loss of floristic and invertebrate diversity.

CAP Expenditure

Total planned EU-27 expenditure on the Pillar One Single Payments Scheme (SPS) during the period 2007-2013 amounts to 286 billion euros. This is more than three times larger than planned EU expenditure for Pillar Two over the same period. The largest users of SPS monies over this period are expected to be France (58 billion euros), Germany (40 billion euros), Spain (32 billion euros), UK (28 billion euros), and Italy (27 billion euros). Planned expenditure on Pillar 2 is greatest in Poland (13 billion euro), Italy, Germany and Romania (8 billion euro each) and Spain (7 billion euros). (RLG Report on CAP implementation in 27 Member States 2008?).

The need for further CAP Reform

The forthcoming reviews of the EU's budget and the Common Agriculture Policy offer an unprecedented opportunity to reform and modernise the Common Agricultural Policy (CAP).

The CAP was not designed to tackle the challenges agriculture and land management face in the 21st century: continuing biodiversity decline, water pollution and unsustainable abstraction, soil degradation, accelerating climate change and ever-increasing demand for food and energy. In spite of recent reforms that have reduced the negative impacts of the CAP, the environmental consequence of how Europe's land is managed continues to cause concern across the continent. Further reform is therefore necessary if the EU is to support sustainable agriculture and rural communities, meet its environmental goals and commitments and support the delivery of public goods.

Reforms of CAP to deliver more wildlife recovery and more sustainable farming

In 2009 Birdlife International and others proposed that the role of public intervention in land management and the expenditure of public money should be to secure public benefits. A recent report for the European Commission has also examined how agriculture can be reformed to better support the delivery of public goods (IEEP 2010). The approach advocated by Birdlife International and supported by Butterfly Conservation Europe (BCE) is to establish a sustainable land management and rural development policy underpinned by a legislative baseline of regulation, which requires farmers to do "no harm" to the environment. The phasing out of Pillar One subsidies and the transfer of adequate money into a sustainable farming fund to support delivery of environmental outcomes and more sustainable rural development would be needed.

Some of the money should be used to support delivery of good management on Natura 2000 sites through targeted agri-environment schemes and Natura 2000 payments. And a new scheme to support High Nature Value farmland is essential for the survival of farmland butterflies and other biodiversity. The policy framework also needs to ensure that EU agriculture reduces its own greenhouse gas emissions and contributes to adaptation measures that increase habitat connectivity.

A possible new model for the EU Common Agriculture Policy

Building on the above approach a group of NGOs has proposed a new model for the CAP. This would replace current payments with 5 area based support schemes. Enrolment in the new Basic Farm Sustainability Scheme would be a condition for access to all the others. These would support the delivery of specific public goods through HNV System Support; Organic System Support; a Targeted Agri-Environment Scheme; and a Natura 2000 and Water Framework Directive Compensation Scheme. These would be accompanied by wider support measures for sustainable land management and rural development. Schemes would be modular and could be combined. Member States would establish national and regional programmes, distributing their funding allocations, within EU Guidelines and scheme objectives and rules. EU Commission oversight would ensure coherence, effectiveness and fair treatment of all farmers and land managers. (Proposal for a new CAP: EEB, Birdlife, EFNCP, IFOAM, WWF, 2009).

A possible Scheme for supporting HNV Farming and saving grassland biodiversity, including butterflies.

Keenlyside and Opperman have proposed a new farmer-centred framework of support for HNV grasslands, which recognizes and addresses the multiple pressures on farming families in marginally economic areas thereby reducing the drivers which would otherwise lead to them either abandoning or intensifying these important biodiverse areas. This framework calls for better protection of HNV grassland, through regulations preventing its conversion from permanent grassland; and ensuring farmer eligibility for area payments; specific payments to support extensive livestock farming; support for managing HNV habitats and features through agri environment and Natura 2000 payments with management plans to deliver specific biodiversity benefits; improvements in the market value of HNV products through investment in standards and quality and development of eco tourism and micro businesses; recognition and development of skills and abilities with HNV specific technical advice, training and education; and investment to

secure the future of rural communities and vital services. (Keenleyside C and Opperman R. (2009) in Grasslands of Europe of High Nature Value) Such an approach, if it were to command widespread support, could help to reverse the declines in grassland butterflies and other biodiversity as well as securing more of a future for farmers of extensive grassland

Conclusion.

EU Environment Ministers have acknowledged that the target of halting the loss of biodiversity across Europe has not been achieved. They have agreed to intensify efforts and have set a new target to “halt the loss of biodiversity and ecosystem services in the EU by 2020 and restore them in so far as feasible, and step up the EU’s contribution to averting global biodiversity loss.” This has been supported by EU Heads of Government. Reform of the Common Agriculture Policy, to redirect funding to the delivery of public goods, particularly recovery of biodiversity and landscape quality is essential to achieve these goals. For butterflies the most urgent priority is to reform agriculture policy, funding and practice to support sustainable management of High Nature Value farmland and the Prime Butterfly Areas of Europe.

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Appendix 4 / BCE advice to Commissioner Ciolos re Common Agricultural Policy Reform

20/10/10

Dear Commissioner Ciolos,

CAP Reform 2013: EU Communication: Support for HNV farming and Biodiversity vital

I am writing, on behalf of Butterfly Conservation Europe (BCE), to ask you to give more priority in the forthcoming EU Communication on CAP Reform 2013 to supporting High Nature Value (HNV) farming. This is important for social reasons in Europe's rural areas and makes an important contribution to halting the loss of biodiversity and helping its recovery. EU Heads of Government committed themselves in the Spring to action to achieve recovery of biodiversity and ecosystem services, as far as practicable, by 2020. It is clear from research and from Member States' Article 17 reports that farmers and farming systems have a key role to play in stimulating and supporting this recovery, as well as producing healthy food. As you know, the way CAP financial incentives are structured, the conditions applied and the amount of money available, are all crucial in influencing farmers' behaviour. They will have a big impact, in the years between 2013 and 2020, on how much wildlife recovery occurs and whether the European farming areas support the recovery of pollinators (which will affect longer term food security) and the delivery of other important ecosystem services.

During the Debate on CAP 2013, which you organised in July this year, you acknowledged the need for CAP 2013 to respect the balance of nature and to become greener as well as reaching for better economic performance. It is important to show to European citizens that CAP 2013 will improve the environmental performance of agriculture as well as helping to mitigate and adapt to climate change and meeting the other challenges that face land use in Europe. As you said, society is not passive in the face of environmental challenges. Agriculture has solutions to offer. High Nature Value farming, with sustainable grazing of semi natural habitats, particularly grassland, makes an important contribution to life in rural areas and helps maintain cultural landscapes. It is already declining and is at risk of further serious declines because of low economic viability (see Report on HNV farming by the European Forum on Nature Conservation and Pastoralism, BCE and others, in following email). New sources of CAP support are needed for HNV farming to lessen both abandonment and environmentally damaging intensification of these areas. Research shows how important these grassland areas are for butterflies and moths - the European Grassland Butterfly Indicator shows declines of some 70% since 1990. (See copy of BCE Report attached). This is a grave decline and urgent action is needed to start reversing it. In addition to more support for HNV farming it is also essential for the EU Communication on CAP reform to refer specifically to the need for CAP monies to play a significant role in funding the sustainable management of Natura 2000 areas, as part of the integration agenda and to increase funding of targeted agri-environment schemes that deliver biodiversity gains.

In this UN International Year of Biodiversity it makes sense for the EU to commit to transfer more CAP funding into action that supports biodiversity and ecosystem recovery and to give more practical realisation to the EU Treaty commitments to environmental integration. We call on you to ensure that the EU Communication on CAP 2013 explicitly commits to ensure sufficient funding to support High Nature Value farming, sustainable management of Natura 2000 areas and more delivery of targeted agri-environment schemes and so establish a greener as well as more efficient CAP that supports farmers to deliver biodiversity and ecosystem recovery, as well as healthy food, over the period to 2020.

We look forward to seeing such a forward looking Communication on CAP 2013 and to positive follow up action.

I am copying this email and attachments to Georg Haeusler and colleagues in your Cabinet, Environment Commissioner Potocnik, Vesna Valant, Head of his Cabinet and to colleagues on the Board of Butterfly Conservation Europe.

Yours sincerely

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Appendix 5 / Letter from BCE and other EHF Members to EU Environment Commissioner re Resource Efficiency

26/06/10

Dear Commissioner Potocnik

EU 2020 Strategy: Flagship initiative on Resource Efficiency: synergy with new EU Biodiversity Strategy

It has been agreed that resource efficiency needs to be a key element of Europe's approach to delivering a secure and just future for European citizens. We welcome the fact that you are responsible for developing a Flagship Initiative in this critical area as part of the EU's 2020 Strategy. Wasteful use of natural resources of energy, water and raw materials is neither justified nor prudent. We need to find better ways of achieving big reductions in energy and resource use while still delivering prosperity. Innovation will be a key. As will education of citizens and the exercise of corporate responsibility by companies, taking a view of both their short term interests and those of citizens – both those already born and those to come.

We are also pleased that EU Heads of Government have set a new target for the recovery of biodiversity and ecosystem services by 2020. This is a vital objective and one that as environmental NGOs we will continue to work hard to help deliver. We see a strong link between wise use of Europe's resource base and protection and recovery of biodiversity. It would be good if the action plans to deliver both initiatives were developed in a complementary way. So for instance biodiversity sub targets, which we hope will tackle the sectoral dimension (in particular agriculture and fisheries) can support protection and recovery of the resource base; and elements in the resource efficiency initiative, eg to reduce the EU's footprint and to reduce pressures from other sectors like energy and transport, through reductions in use and increased efficiency, will help to reduce losses of biodiversity. Ultimately, achievement of a low carbon economy depends on both investment and innovation and protection of natural resources.

As a fundamental part of the resource efficiency initiative, it will be important to protect Europe's resource base by improving the sustainability of land use across the European Union. The Millennium Ecosystem Assessment showed that Europe is the most fragmented Continent on the planet. And the science shows us that we are dependant on the good functioning and resilience of our ecosystems for many of the ecosystem services, like pollination, flood amelioration, climate regulation and cultural and recreational services, that underpin our economic and social welfare. Furthermore, ecosystem resilience depends on biodiversity at multiple scales.

Looking after Europe's ecosystems, particularly our peatlands, native forests and extensive grasslands, is an essential part of mitigating climate warming as these ecosystems provide a key function as carbon sinks. Their degradation, fragmentation or destruction will exacerbate climate change, with all its adverse effects. The EU's 2020 Strategy will only make progress towards a low carbon future if protection of these ecosystems is part of the Strategy.

So, in developing Europe's approach to resource efficiency we call on you to incorporate a proactive approach to the protection and sustainable management of Europe's ecosystems at a landscape scale, restoring their integrity, functionality and resilience where feasible – as called for in the commitment of Environment Ministers and the European Council. And to ensure, as part of the EU 2020 Strategy implementation and the biodiversity strategy that the necessary investments are made between now and 2020 to restore the biodiversity and landscape connectivity upon which Europe's ecosystems depend and thereby sustain the resource base on which Europe can continue to prosper.

We would welcome your reflections on these far reaching issues and would appreciate the opportunity for a discussion.

Yours sincerely,

Sue Collins
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Butterfly Conservation Europe
Vice Chair
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