EUROPEAN INTERESTS GROUP

Butterfly Conservation

NEWSLETTER

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EDITORIAL

When I started being interested in butterflies more than fifty years ago collecting was normal and seemed the natural way of pursuing one's hobby. Stamp or egg collecting were alternatives. I stopped collecting in 1965 and widened my interest in natural history with photography replacing collecting. If I had been a Coleopterist or a Dipterist I would have probably continued to collect.

There needs to be a reason to collect and it should not endanger or diminish the population of insects collected. I can accept for example that in West Africa collecting some species or groups of butterflies is essential for accurate identification and with an evolving taxonomy serious taxonomists might well want to go back to their collections. In Ghana I was initially happy to hand butterflies to the serious taxonomist for West Africa and for him to kill and store them in order to dissect and examine the genitalia to make an accurate identification later, but not for long - he can collect his own. Like most EIG members, I suspect, we don't want to harm butterflies ourselves even if we can see why others might want to for genuine scientific reason like counting the chromosomes or providing fresh material for DNA analysis. In my experience

even those who never harm butterflies will squash a horsefly or mosquito with enthusiasm. I certainly do.

In Europe the butterfly fauna is well known and you can identify virtually all species to species level in the field. You can with practice examine the genitalia of live male *Mellicta* and *Hipparchia* species and let them go. Wood Whites (*Leptidea*) are more difficult and I would prefer to record them as Wood White group and leave the difficult taxonomy for others. It is not surprising that in the UK with less than sixty species butterfly collecting has almost died out whereas for many moth enthusiasts collecting is still ok. In other parts of Europe, with often 200 or more butterfly species, collecting has been slower to die out. Collecting butterflies has been banned in Germany and Spain for some time.

In some parts of Europe the commercial collector who sells rare specimens on ebay or the collector who has not moved on from cabinet drawers with long series of specimens are a danger to some populations of very rare and local species. We have come across Hungarians 'collecting' *Turanana endymion* (Odd Spot Blue) on its very small site in Greece and seen the same car if not necessarily the same people on Mount Phalakron where there are some very scarce species. Our Italian colleagues were very worried that the single newly discovered site for *Euphydryas maturna* (Scarce Fritillary) in North West Italy had been collected to extinction as it was only a few hectares and a collector was parked there for several days. Fortunately the EIG expedition to survey for this species found it over a much wider area. I also saw last summer a site where the vast majority of sedum plants had been picked in order to collect the eggs of *Scolitantides orion* (Chequered Blue). This site had been recently written up in a French journal.

All EIG members and most people will have no trouble deploring the collecting of endangered rare butterflies for profit. In many cases the collecting is illegal. We are working on a code of conduct for EIG trips that not only would prohibit collecting but also encourage members to be careful with sensitive site details so that they don't get in the wrong hands. We will publish a list of rare and very local species for which particular care is needed. This whole subject is a serious obstacle to butterfly recording in some countries as no one wants to pass on sensitive data if it might lead to inappropriate collecting. Lazaros Pamperis and I hit on a perfect way to discourage commercial collecting. We were on the Greek/Bulgarian border and Lazaros pointed out a site above us. We had been talking about *Pseudochazara amymone* (Brown's Grayling), a butterfly that very few people have seen and would be of serious commercial value to collectors. I suggested putting a record in a butterfly journal for the site above us for *amymone*. It is one of few un-cleared cold war minefields in Europe!

You will know that EIG and the Jardin des Papillons Proserpine are doing a conference in Digne Les Bains (Provence) next summer (29-30 June). The French butterfly world is split between the passionately non collectors like Tristan Lafranchis and a French butterfly fraternity that considers collecting 'normal'. It will be the first public talk by Tristan Lafranchis in France in years. We wish to bring the conservation orientated butterfly community in France together. Our hosts will be celebrating the 10th anniversary of the Jardin des Papillons Proserpine. This garden has recorded 137 species and gets more than 5000 visitors a year. It is an inspiration to young people and I am always hugely encouraged by the enthusiasm with which its 2 full time staff show butterflies to parties of school children. Come and be inspired!

Simon Spencer

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Please email any thoughts, ideas or whatever you want included in the newsletter to Simon Spencer: cerisyi@btinternet.com

EIG AGM Report

Apologies we received from Hugo Brooke, Maurice Avent, Peter Eeles, Roger Kemp, Alan Bird, Mike Prentice, Martin Davies, Mary and Michael Gwilliam, Howard and Christine Frost.

Present: Di Hall, John Winterbottom, Marian Thomas, Stephen Reibach, Greg Herbert, Richard Stott, Lawrie & Bridget de Whalley, Dudley & Jean Cheesman, Roger Wasley, Tony Simpson, Neil Thompson, Nigel Peace, Richard Smith, Julia Powell, Wilf Powell, John Reeve, David Withrington, Peter Bygate, Maurice & Barbara Higginbotham, Mike Williams, David Dennis, Roger Gibbon, Ann Gibbon, Simon Spencer, Anne Spencer, Nick Greatorix Davies.

The 2012 EIG AGM was held on Saturday 13th October 2012 as a members' day and get together at Stratford Butterfly Farm - Web address is: www.butterflyfarm.co.uk Holding the EIG AGM at the end of the BC AGM had become increasingly unsatisfactory. It was a great opportunity to be able to have more time for discussion and for members to meet.

After coffee we were conducted round the butterfly farm and had the opportunity to observe and photograph an abundance of tropical butterflies including some enormous blue Morphos. There were a range of other insects and I was particularly impressed by the leaf cutter ants on a rope. We then went to the nearby Bear Inn for an excellent lunch.

The meeting conducted its formal business in the afternoon and attendance was such that some people had to stand. The treasurer Nigel Peace presented the accounts which were adopted by the meeting. The meeting also endorsed changes to the EIG rules made necessary from the fact that we now had our own treasurer and bank account and the appointment of Graham Revill, an EIG member who was a professional auditor, to oversee the accounts. Nigel also updated members on the Thriplow fund and how it was being spent and encouraged more applications for next year. (See article on page 5). All members of the committee: Simon Spencer (Chair), Mike Williams (Vice Chair and trips organiser), Nigel Peace (Treasurer), Neil Thompson, Dudley Cheesman, Mike Prentice, Martin Davies and Nick Greatorex-Davies were standing for re-election and were re-elected. The chairman welcomed Mike Prentice and Martin Davies who had recently joined the committee.

The chairman spoke about the success of EIG volunteers in responding to survey requests in Europe, thanked Neil Thompson who is stepping down as web master for his contribution to the development of EIG and updated members on the new website that is being developed by Mike Haigh and should be live shortly. Members were encouraged to come to the conference in Digne Les Bains and the chairman gave an update on the arrangements.

The chairman introduced Brigitte and Pieter Kahn who had come from Provence to show one of their excellent short films of butterflies. The film chosen was on the Provence Hairstreak (*Tomares ballus*) a butterfly whose early stages had rarely been seen let alone filmed. There was a bit of background noise and we could not use the television so the sound from the speakers on the laptop was not very loud but members were most impressed and enjoyed it very much. We hope that EIG can make more of these films available to members in the future. With so many butterflies on their doorstep and such great weather they have endless scope for making more really magical films.

Simon Spencer

THRIPLOW GRANTS FOR SURVEYS IN 2013

Thriplow funds supported three surveys in 2012 - for Scarce Fritillary *(Euphydras maturna)* in NW Italy, and Bosnian Blue *(Plebejus dardanus)* in Bulgaria and (separately) in Northern Greece. The first two trips successfully located and mapped the target species; the Greece group failed to do so but it did demonstrate that the species no longer occurs at altitudes where it has previously been found.

£2,300 of Thriplow funds remain to support surveys in 2013. We want to spend this money - please consider an application now!

The essential qualifying criterion is that the trip must be to survey for or contribute to the conservation of one or more Red List species, particularly those that are Endangered or Vulnerable. Contributions will only be made if the expenditure is approved in advance. A report of the trip must be submitted to the EIG subcommittee and made available to BCE partners.

In brief:

- the trip must be to survey for or contribute to the conservation of one or more Red List species
- grants will cover up to £250 towards travel and accommodation costs for EIG members leading expeditions; up to £100 towards travel costs for individual EIG members undertaking a visit to carry out targeted recording; and travel & accommodation expenses incurred by local collaborators.

Applications are now invited for contributions towards surveys in 2013. An application form, including details of qualifying criteria, is attached as a separate file. Applications must be received by Friday 15 March 2013. They will be considered by a subcommittee comprising David Dennis (BC chairman), Dudley Cheesman (former BC chairman), and me.

If you have any queries, please contact me at liz-nigel@hotmail.co.uk.

Nigel Peace

EIG Treasurer

Marsh Award

The winner of the Marsh Award will be announced at the BC AGM on 17th November 2012.

2013 EIG Calendar Competition

A big thank you to all those who submitted photographs but once again unfortunately we couldn't use some of them because of incorrect resolutions etc.. Please try again next year.

The Calendar which includes some really good photos is now available and can be ordered by email to Anne: **rhoslan.anne@gmail.com** the cost is £8 each or 2 for £15 + £1.20pp (up to 2 calendars). The calendar will also be on sale at the BC AGM in Nottingham on 17th November.

Notices

EIG/Jardin des Papillons Proserpine conference

EIG and the Jardin des Papillons Proserpine are organising a conference in Digne Les Bains (France) entitled "Les papillons de jour de France:état des connaissances et perspectives de conservation" - The butterflies of France and the state of knowlege with a perspective of conservation. **28-30 June 2013**.

On Saturday 29th AM and Sunday 30th AM we will meet at the conference centre and hear a number of speakers for a morning session. The conference facilities (la salle du centre culturel René-Char) holds 260 people and have the usual audio visual facilities. Our French colleagues have persuaded the Mairie to provide the conference room for free. Digne is quite small and there is good parking opposite. Coffee facilities will be provided by the Mairie who will also provide an aperitif on the Saturday lunchtime. It will mainly be in French but we will have simultaneous translation for the lectures. We are aiming to keep the conference fee to a minimum of probably about 50 euros (This does not include any meals). The main purpose is to get conservation minded French butterfly people together. Participants will have opportunities to visit the Jardin that is celebrating its 10th anniversary and has recorded 137 species of butterfly. They get 5000 visitors a year. We hope that this will be open to early arrivals on the Friday afternoon. As the conference facilities do not include a restaurant there will be packed lunches available. Two or more field trips to see butterflies locally by coach will be arranged in the afternoons. We are hoping to hold a dinner on the Saturday night near Digne and probably a smaller dinner on the Friday night for the English contingent and EIG members in Digne.

Accommodation: The tourist office www.ot-dignelesbains.fr can help with accommodation but early booking is advised as there are only about 200 beds. There are also two camp sites and one is near the Cultural Centre.

Travel arrangements. Getting to Digne by public transport is not going to be easy but if there is sufficient interest we might arrange a bus from an airport (probably Nice). This is an absolutely delightful part of France and for me it will be the first part of a more extended visit travelling in my campervan. Many good butterfly localities are nearby.

If you are interested in attending the conference please email me at cerisyi@btinternet.com . I would then like to know about your travel arrangements and what accommodation you have booked or are going to book. I will then create an email group to keep people up with developments rather than send it round all of EIG.

Simon Spencer

EIG Responds to Survey Requests from Colleagues in Europe

In November 2011 Mike Williams and I attended the BCE conference in Laufen (Germany) and I gave a presentation on the work of EIG and volunteered our members as skilled self – funded butterfly surveyors who would be delighted to undertake surveys for BCE partners in Europe. We had by then had a positive response from the Thriplow Charitable Trust and were able to offer financial assistance to members undertaking surveys of red list species.

Several conversations at Laufen and afterwards by email resulted in EIG sending small teams to respond to requests from our partners in Europe and many of the reports in this newsletter had their origins in those conversations. I don't think there was any request where we could not find volunteers and although some of the avenues of research are far from completed we have made a significant and useful contribution to the conservation of rare butterflies in Europe.

For many of us the disastrous UK summer weather this year was a great incentive to go elsewhere to see butterflies. It also works because the local contacts and collaboration enhance the experience for the participants and for the BCE colleague a little foreign interest could be valuable in persuading reluctant cash strapped government authorities to act to conserve and protect butterflies. They also get a report or survey data that would have been very time consuming to collect. We often forget that whereas in the UK butterfly volunteers are everywhere and Butterfly Conservation has 18,000 members this is far from the case in the rest of Europe. Not only is there less interest but the identification skills required are much more demanding than in the UK.

I will shortly contact all the BCE partners asking for suggestions of future work

EIG Trips - Guidelines

After consultation with Butterfly Conservation's head office we have drawn up new guidance for EIG trips. For a start we need to be careful to avoid falling foul of the EU rules on the licensing of Tour Operators and must be careful to ensure that if we are collectively providing local transport that all participants book their own flights and hotel accommodation and pay for these themselves. Alternatively when we use a licensed tour operator we must be clear that the contract is between individuals and the tour operator. We insist on all participants having adequate travel, accident and medical insurance and have guidance for best practice such as collecting details of next of kin and medical conditions in sealed envelopes at the start of the trip. The idea is to make it easier for more people to take on the job of running EIG trips and to ensure that all trips are conducted in a safe and proper manner. This will be available as a download from the new EIG website or from me at cerisyi@btinternet.com . We also have generic risk assessment for EIG trips and although most people would consider it the statement of the obvious there are risks in parts of Europe that people might not be aware of. Attack by shepherds' dogs is not funny. A friend who spent a lot of time with Greek transhumant shepherds was frequently bitten by their dogs despite being part of the 'group'. You are much safer as a small group in the field than you are on you own but I normally carry a walking pole in the field just in case. This risk assessment will be available in the same way. It is a working document that needs adaptation to local conditions.

Almost all EIG trips to date have been run by either Mike Williams or myself and we are always looking for more trip leaders. A big thank you to Nick Greatorex-Davies who has led many trips in Bulgaria for The British-Bulgarian Friendship Society for taking on an EIG trip (see below).

Simon Spencer

EIG Trips to Survey for Bosnian Blue (Plebejus dardanus)

The Bosnian Blue (*Plebejus dardanus*) is found on a few mountains in the Balkan peninsular and in Turkey. Its foodplant *Androsaceum villosa* is a low growing flower that is particularly fond of the tops of mountains. In 2009 Lazaros Pamperis and I had tried to find it in its only known site in in Greece: Mount Orvilos where Lazaros and Tristan Lafranchis had encountered it frequently in the past. We did not see any butterflies at all and virtually no foodplant and were aware of a massive forest fire in the year 2000 had burnt a lot of the forest on the south face. In 2009 we had walked up from the lake below the mountain and after 2 hours had found a road and a phone mast. On that occasion we only reached the site of previously known habitat on the south face. We always intended to make a return visit at some point and start from the radio mast where we could leave a car to survey higher on the mountain. The first task of the EIG trip to Mt Orvilos in July 2012 was to locate the dirt road to the radio mast. Our first approach failed despite the big 4X4 that we had hired but with Lazaros making enquiries from anyone we met we were able to find the route through an abandoned cold war army camp. Maps of the area were next to useless. We were therefore able to begin our climb a lot higher but even so we were unable to reach the summit in the day but did get to the ridge on the Bulgarian border a lot higher than on our previous visit. Again there was little foodplant and no *dardanus*.

The EIG Trip was in two teams myself, Nigel Peace, Maurice Avent, John Salmon and Lazaros on the Greek side and Nick Greatorex-Davies leading a team including Martin Catt, Nick Freeman, Mitko Petrakiev (driver/guide),Tony Rayner and Mike Skelton on the Bulgarian side. We soon heard that they had been successful in reaching the summit of Mount Orvilos, the Bulgarians call it Mount Aliboitush, and that Nick Greatorex-Davies had found several *P. dardanus* and *Androsaceum* on the Greek side of the border to the east of the summit. There is a convenient mountain hut on the Bulgarian side making it a useful staging post but it was still a long walk. To make the summit from the Greek side we would have needed to have camped on the mountain and we were not equipped for this. We spent the rest of the week surveying other sites in the area and though we failed to Dil's Grayling *Pseudochazara orestes* we were delighted to find the larvae of Tesselated Skipper (*Muschampsia tesselum*) feeding on *Phlomis samia.*

Despite some very energetic walking on several mountains the Bulgarian team were not able to add to the two known sites for *dardanus* in Bulgaria. Both these trips benefited from funding from the Thriplow Charitable Trust.

Mating pair P.dardanus © Nick Greatorix-Davie

P.dardanus habitat in Greece on Mt. Orvilos © Nick Greatorix-Davies

Mt. Orvilos, Greece ©Lazaros Pamperis

Simon Spencer

Canary Islands' Large White (Pieris cheiranthi) on Tenerife, Spain

Introduction

It appears that the **Canary Islands' Large White** (*Pieris cheiranthi*) is threatened on the island of Tenerife. This is a collation of reports of *P. cheiranthi* from EIG members who have visited Tenerife over the last year. The larval food plant *Crambe strigosa* "Crag Cabbage" on Tenerife is confirmed, possibly for the first time.

Female searching for egg laying site on *Tropaeolum*

Male feeding

Background

Historically this butterfly has been found on three of the western Canary Islands islands of La Gomera, Tenerife and La Palma. These islands are high enough to interrupt the trade winds, increasing rainfall leading to a wetter climate that supports laurel forests (*laurisilva*). It has not been found on La Gomera for several decades and so is presumed extinct there. It has become quite rare on Tenerife in recent years, which is a cause for concern in the light of what has befallen the species on La Gomera and its close relative the now presumed extinct **Madeiran Large White** (*Pieris wollastoni*), from Madeira. The population on La Palma is currently strong and not suffering in the way of the Tenerife one.

Female nectaring in gardens in Puerto de la Cruz

Cloud banks to 1500m - a near permanent feature.

It is not known why the population from La Gomera became extinct, but that of *P. wollastoni* is strongly suspected to have been reduced to extinction following the introduction of a parasitoid or disease combined with dramatic habitat loss. The concern on Tenerife is that habitat loss is already severe and that an introduced parasitoid or disease could now be threatening it on this island.

Distribution and habitat on Tenerife

Two subspecies are described, *P. cheiranthi cheiranthi* from Tenerife and *P. cheiranthi benchoavensis* from La Palma. Both taxa are known from low to mid altitudes on the northern slopes of these two islands. On Tenerife it appears to be known historically along the north coast from the Anaga massif through Puerto de la Cruz, to the Teno mountains in the west.

There are however a few old records (and one new record, see below) from the southern slopes of Mt Teide.

On Tenerife records are generally from low levels and into the foothills of the various volcanic massifs that dominate the island, up to 1400m. The climate in these northern areas is relatively wet and supports the now rare laurel forests (*laurisilva*) that once covered most of the sub-tropics. This history also links some Canary endemic species with relatives many thousands of kilometres away such as the **Canary Red Admiral** (*Vanessa vulcania*) and **Canary Blue** (*Cyclyrius webbianus*). Secondary (non-natural) habitat appears to be exploited in towns, villages and cultivated areas, e.g. the town centre of Puerto de la Cruz itself where the species uses garden nasturtium (*Tropaeolum majus*), introduced from South America.

Perhaps surprisingly for such a large butterfly, it seems that the natural food plant has not been confirmed from Tenerife, although it has been presumed to be *Crambe* species such as *Crambe strigosa* and *C. santosii* as found on neighbouring La Palma.

Observations: Martin Wiemers

Martin is the author of a very informative paper on the butterfly fauna of the Canaries. See ref [1].

In late 2011 Martin reported to EIG the concern he had about the dramatic reduction in records of *P. cheiranthi* he had received from Tenerife compared to a few decades previously, a situation not mirrored on La Palma. He noted that the species had greatly declined in the secondary habitats where it was once common. Due to the apparent drastic decrease of 90% during the last 30 years, the taxon *Pieris cheiranthi cheiranthi* was proposed to be included in the list of critically endangered species in 2009 (ref. [2]) and gazetted as such in 2010 (ref. [3-4]). Martin notes that the two reported sightings from Gran Canaria are very doubtful and the species has never been found at these localities or anywhere else on this island again, despite intensive searches (including a visit to these localities by Martin in August 2011).

Observations: Teresa Farino and John Muddeman, February 2012

Teresa and John visited the island in February 2012. They saw several *P. cheiranthi* in the north facing foothills of the Teno mountains in the north west of the island. This is a remote and rugged area with primary habitat for *P. cheiranthi* so this could be a long term priority conservation area for this species.

John is in contact with local naturalists about this species and they seem to think it's not that rare on Tenerife.

Observations: Roger Perkins, March 2012

Roger found two female butterflies near a village to the south of Mt Teide, well outside the usually recognised range, and the other side of the 3800m high volcano. A natural barrier such as this would normally preclude casual movement. This location is unusual for the dry south side of Tenerife, but the village is close to a deeply excavated ravine (Barranco del Infierno)

with steep cliffs containing the only permanent stream on Tenerife. This ravine is known to host species of *Crambe* (such as *C. laevigata* and *C. scaberrima*) and therefore appears to be a perfect but previously overlooked habitat for *P. cheiranthi*. Roger noted that this (and probably large areas of the island) are rarely visited by lepidopterists so there is potential for new discoveries. I wanted to follow up his sighting in April 2012, but the day I visited the usually sunny south flank of the volcano was shrouded in cloud.

Observations: my family holiday, April 2012

We arrived on 13th and left on 24th April. We were based in Puerto de la Cruz for our entire stay. The weather was much the same throughout our stay, deteriorating on our last day which was cool and windy. Bar two half days, a cloud bank was consistently present between 1200 and 1500m. Temperatures in the cloud were the coolest on the island typically around 10℃. Above the clouds glorious blue skies and a blazing sun very quickly heated the cool mountain air to 22 to 24℃. Below the cloud, at the coast at Puerto de la Cruz temperatures ranged from 18℃ in the morning to a humid 22℃ if the cloud thi nned.

My search for *P. cheiranthi* was concentrated on the historical heartland of this species on the North coast so I only had two sunny half days to share between it and my family!

The dull conditions severely limited butterfly activity, with even **Small White** (*Pieris rapae*) and **Canary Speckled Wood** (*Pararge xiphioides*) reluctant to fly unless disturbed.

Fortunately, I'm happy to report that butterflies (even rare ones) and family can coexist and it was a pleasant surprise to find a perfect female *P. cheiranthi* flying along a row of shops and a hedgerow on the short walk into the centre of town on our first sunny morning. There appears to be a modest but healthy colony here and I usually saw between 10 and 15 individuals flying here when the cloud wasn't too thick. Both sexes were active, although females rested more frequently and for longer during duller spells of cloudy weather. The butterflies didn't seem to wander far; I only saw one male away from the colony, at the Botanical Gardens, although the dull weather may have restricted movement.
I found several females laying eggs on *Tropaeolum majus,* which is a reported secondary larval food plant. They would flutter low over the sprawling plants before laying a small group of two or three eggs near the edge of the underside of a leaf. I had expected them to lay large egg batches as the **Large White** (*Pieris brassicae*).

Four photos: Egg laying activities above a bed of *Tropaeolum*

I visited the habitat in the Teno mountains where Teresa Farino reported adult butterflies in February. It was very dark under thick clouds and I even had a little light drizzle to dampen my spirits. Just a few hardy *P. xiphioides* were flying short distances in the gloom. However, I did find *Tropaeolum majus* and a few isolated plants of *Crambe strigosa*. This plant is very distinctive. It has a base of large (up to 40cm long) robust densely packed leaves, and a leafless flower spike rising to 150cm or more which is a mass of tiny white flowers at the end of filamentous stalks. Consequently it is highly visible from a distance (several 10s of meters) but it is not common. It seems to grow only in damp shady places such as along cliffs, walls, clearings in thick *laurisilva* forest, gullies and water courses.

I found a patch of *Tropaeolum* entwined around the base of several *Crambe* plants. Large notches in this plant were attributed to a *P. rapae* larva which was resting along the centre of one of the damaged leaves.

I finally noticed a quantity of large larval droppings on a low bush. The flowerless *Crambe strigosa* next to the bush was host to 50 nearly fully grown *P. cheiranthi* larva. They had stripped the uppermost leaves and all the flowers and flower stalks leaving only the largest stalks and branches higher up the plant. The larvae had split into 3 main groups of between 7 and 17 individuals and some solitary larvae were spread around lower leaves and bare twigs higher up. All larvae looked in very good health, were roughly the same size and there was no sign of disease or distress.

The plant was in a dark shaded location beside a (dry) water course below trees, and cliffs. There was no evidence at all that the larvae had touched the alternative larval food plant *Tropaeolum majus,* despite their leaves intertwining.

Four photos: Larval groups feeding on native *Crambe strigosa* with introduced *Tropaeolum majus* in very close proximity.

Observations: Nigel Peace, September 2012

Few butterflies of any species were flying during his visit. Nigel failed to find *P. cheiranthi* in Puerto de la Cruz or the Teno mountains despite targeted searching.

Rearing experiment

With speculation about parasitisation and disease levels causing declines I took 5 larvae from the wild to feed up in the hotel room on leaves of *Crambe strigosa*. I took one larva from each of the 3 main groups, plus one solitary larva resting exposed at the very top of the plant and one from one of the leaves lower down. They all grew and fed well and several days later each one successfully pupated within a few hours of each other. None were parasitised and none showed any sign of disease. Having taken just a small sample from just one larval batch on one occasion, this is perhaps not a conclusive result, but it does suggest that parasitisation/ disease may not be a key factor in the current population decline.

Parasitism

Larvae pupating and healthy pupae

In their 2007 article, Al Lozan *et al*, ref [5], confirmed the presence of the parasitic wasp *Cotesia glomerata* from La Palma. It is a parasite of *Pieris*, which is often introduced as a biological control agent for agricultural purposes. The authors confirm the parasitoid from *P. cheiranthi*. The wasp prefers hot open places, such as agricultural areas, gardens etc. and this was where it was found on La Palma. It was not however found in the native laurel forest, which has denser vegetation and is cooler and more humid than agricultural regions. This offers hope that it may not spread into primary habitat, and could explain the dramatic reduction in the secondary habitat on Tenerife but its continued presence in primary habitats.

Irrigation

Most coastal areas have been heavily developed or farmed. Only the steeper slopes around the various massifs dominating the island remain untouched. This habitat loss is a likely cause for weakening of a population. However, I speculate a change in farming technique and demand for water has also contributed. Comparing the situation around Los Gigantes I found in 2012 and my father found in 2002, many of the concrete irrigation channels full of water in 2002 are now empty, having been replaced by plastic pipes. The hills are covered in concrete irrigation channels and leaks in the past have provided damp land and opportunities for natural flora and flora to spread in otherwise very dry areas. These leaks have now dried up. Additionally, the pipes have facilitated the redistribution of water taken from natural water courses at higher levels which further impacts on the available niches for wildlife requiring more humid conditions. Both effects will reduce the opportunities for *Crambe* to thrive, with a probable impact on butterfly numbers.

In contrast to most of the island, the irrigation channels in the Teno mountains were still running with water and there are relatively few plastic pipes – this may be saving the *Crambe* and the butterfly but the situation is likely to change without intervention.

Irrigation pipes bring water from high levels without leaks.

This problem of irrigation drying out natural water courses has been raised as an issue by Martin Wiemers in Prime Butterflies Areas of Europe, ref [6], on the neighbouring island of La Palma.

Conservation

There are several pressures on this species. These are changes in irrigation practices (i.e. over-extraction of water and use of watertight pipes), possible impact of introduced parasitoids and/ or diseases and extensive habitat destruction. It appears that protection of natural primary habitat in laurisilva forests could afford appropriate protection for this species and for a great many other endemic taxa of fauna and flora. However, for a better understanding of the habitat requirements of this species on Tenerife and its current conservation status, further research is needed.

Acknowledgements

Thanks to all those who helped and advised me before and after my visit to Tenerife, particularly those who shared their personal experiences from Tenerife and commented on the text of this article: Teresa Farino, Martin Wiemers, Roger Perkins, Nigel Peace.

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What makes island studies of butterflies enticing?

Almost everyone interested in wildlife must be familiar with the island biodiversity conundrum: islands are typically species-poor but at the same time are rich in forms found nowhere else, that is, forms endemic to the island or an archipelago. Those that have taken a deeper interest in islands will quickly relate both patterns to the neat formulations in MacArthur and Wilson's (1967) monograph on 'The Theory of Island Biogeography'. The key factors are an island's area and its isolation; broadly, isolation determines how many, and what type of, organisms can access the island, whilst area determines how long they may persist there. Poverty and diversity are simply opposite sides of the same coin, such that a small offshore island facilitates colonisation of species but, lacking resources, results in their readily becoming extinct, whereas a large isolated island is hard to colonise, but then more likely provides the conditions and resources for the persistence of organisms fortunate enough to be able to access it. Moreover, in the latter case unique and spectacular endemics can easily evolve. All this appears, summarised blandly in a few sentences, quite simple. The butterfly enthusiast would then be best directed to visit the larger isolated islands as there are found the greatest number of rarities; perhaps, the little offshore islands can be conveniently left to the tourist? Or is that just too simple and would the butterfly enthusiast be missing something on the small offshore islands? Perhaps thankfully, island biogeography, is not quite that predictable or simple. Just what impact islands have on organisms is not a one-way process. Impact depends on organism biology and on island environments (topographic and resource heterogeneity, geographical position in longitude, latitude, and source mainland), thus the range in conditions, as well as on basic island dimensions of area and isolation. There are extraordinary life form exceptions to the small/large, near/remote syndrome of expectations, such as endemics and wholly unexpected forms (i.e., ecotypes) on smaller near-shore island (e.g., *Maniola chia*, Thomson, 1987; several *Hipparchia* species and *Maniola* western forms on small, near-shore Tyrrhenian islands (Dapporto et al., 2011a.b)).

So, how much do we know about the butterflies of European islands? We have now reached a point where we can seriously consider the production of a text on European island butterflies. In the process of planning is such a text: 'Butterflies on European islands: their geography, ecology, evolution and conservation'. A book with this title would have been inconceivable in the

1970s. Then, even the data for the British offshore islands was extremely sparse (Dennis, 1977). But, by 1996, it was possible to carry out in depth analyses of the butterfly fauna on the British islands (Dennis and Shreeve, 1996). By 2000, it was the turn of the Aegean archipelago (Dennis et al., 2000) and more recently, a series of more technical papers have been carried out extensively investigating the butterfly faunas of west Mediterranean islands (e.g., Dapporto and Cini, 2007, Dapporto and Dennis, 2008; Dapporto et al., 2009, 2011a,b). During the past 10 years, data on islands have steadily been accumulated throughout the Mediterranean, islands off the coasts of France, the Netherlands and Germany, the large Danish archipelago, and the myriad islands off the Norwegian and Swedish coasts. Data are now available even for islands in the Barents Sea (Bolotov, 2006), Europe's furthest reaches. The most extraordinary work, of course, has been carried out on the Finnish islands: the seminal ecological research on *Melitaea cinxia* and related species on the Åland islands by Prof Ilkka Hanski and his colleagues in Finland (Hanski and Gilpin, 1997; Ehrlich and Hanski, 2004). Arising from all this work is the species database on butterflies of European islands (Dennis et al. 2008) which continues to grow (Cuvelier and Mølgaard, 2012), checking predictions of earlier work and making new discoveries; at the same time, papers and articles are building on the ecology and life history of island butterflies (e.g., Özden et al., 2008; Özden and Hodgson, 2011), the integrity of endemics (e.g., *Papilio hospiton*, Aubert et al., 1997; Cianchi et al., 2003) and the recognition of cryptic layers of diversity among islands and mainland (Dincă et al., 2011 a,b).

With all this work is there anything left to do? All those who frequent Europe's islands in search of wildlife, and aware of the literature, would feel that we have made but a start. To put things into context: we can currently call on data for some 300 European islands. Against this, Berry (2009) supports McCormick's estimates for some 500 islands off Britain; there are >50,000 islands in the Finnish territory of the Baltic Sea alone! Berry also raises the highly pertinent issue of what constitutes an island: for us, interested in butterfly colonisation-extinction dynamics, even a rock-based lighthouse can constitute an island. Then, even if the data for islands are of complete and sound records, the situation on islands is never static, as extreme conditions for lighthouse records would imply. This lies at the very guts of island biogeography: species come and go, as well demonstrated by changing records on two of Britain's tidal islands (Dennis et al., 2012) and on Elba (Dapporto, 2009). Therefore, the hope is that entomologists and butterfly workers will take a greater interest in islands, not just in recording species they see, but engage in serious study of island faunas: their distributions on islands, environmental associations, ecology, life history, genetic and physical distinctions. Islands have the huge advantage of presenting clear bounds to studies and therefore isolated systems for research. There are valuable monographs to emulate (e.g., Ródos; Olivier, 1993). Future records, surveys and research - all will be greatly welcomed by us and the entomological journals, and valuable as a source for conserving butterflies in future; some basic guidelines for surveys were given in an appendix in Dennis and Shreeve (1996) for those keen to get started. Such data have long led to excellent conservation work on the British mainland. Increasingly, similar data are providing the foundation for conservation of butterflies on smaller islands such as Elba where a Butterfly Sanctuary has been created just based on biogeographical principles and analyses. Our hope is that the new book planned will stimulate further interest in island butterflies.

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Italian trips to help with surveys for Scarce Fritillary (Euphydyas maturna) and False Ringlet (Coenonympha oedippus)

Scarce Fritillary (*Euphydryas maturna)* ©Dudley Cheesman

Martin Davies and I responded to a request in an EIG newsletter to help with Italian butterfly surveys in 2012. The first survey was for Scarce Fritillary (*Euphydryas maturna*) a butterfly which until recently was thought to be absent from Italy. A new locality for *E maturna* was discovered again recently and EIG were asked to help assess the strength of the colony. Simon Spencer led a party of 6 who spent 5 days exploring the area in the vicinity of the new locality in North West Italy and Martin and I took over after a one-day overlap to continue the work. Part of the reason for an extended survey period was to cater for the possibility of bad weather or for a season which might be early or late. As it transpired the season was late (as we all know to our cost this year) and we had bad weather but fortunately we all managed to overcome these problems.

Our overlap with Simon and his team allowed us to visit some of the sites together where *maturna* had been seen to see the butterfly and form some view of habitat requirements. As it happens Simon and I had seen *maturna* the previous year in Romania and we were aware that the butterfly likes a combination of meadows, ash (*Fraxinus excelsior*) and water – generally

running water. The advance party had identified a number of sites with *maturna* present and extended the known flight area from approximately 10 hectares to 10 sq. km. Our task was to assess numbers of adults present and to see if we could identify additional sites.

We spent a pleasant day in the field and a convivial evening in the local hotel celebrating our success in finding such a fine insect. Apart from Simon and Anne Spencer the first party included Dudley and Jean Cheesman and John and Diana Winterbottom. With the departure of the first team Martin and I spent the next 3 days surveying the local area in weather which did its best to defeat us. Fortunately despite the weather we saw many *maturna* (29 in total over the 4 days we were there) and once you 'had your eye in' they were relatively easy to find: their habit of sitting on the top of the vegetation meant that on occasion we were able to spot them from quite considerable distances – once from the road at over 100 metres! However despite the presence of reasonable numbers of the butterfly in one valley, we were unable to find them elsewhere even in similar habitat.

The confidential survey report has now been written and submitted to our Italian partners.

On leaving the *maturna* site we drove to near Milan to help with a survey for False Ringlet (*Coenonympha oedippus)*. This is a threatened species throughout Europe and is in serious decline principally due to habitat loss through drainage of wetlands with which it is normally associated. The site we were due to survey is threatened by development and a motorway expansion. Unusually the site is not particularly wet but an area of heathland. The survey project was being organised by Dr Simona Bonelli from Turin University (Simona is also the EIG country representative for Italy) and she brought with her 4 of her post-grad students , a local ornithologist and the Park Rangers from Ticino Natural Park. The 8 of us split into groups to walk transects through the heathland looking for *oedippus* following which we would undertake a 'mark and recapture' exercise. Normally the peak emergence time in Italy for *oedippus* is between 10 and 15 June and they normally only fly for about 2 weeks. We arrived on the site on Monday 11 June with high hopes and started our transects through the scratchy and mosquito-ridden vegetation. After 2 hours we regrouped having seen a good variety of butterflies including Marbled Fritillary (*Brenthis daphne*), Adonis Blue (*Lysandra bellargus*), Blue-spot Hairstreak (*Satyrium spini*), Black-veined White (*Aporia crataegi*) together with a Short-toed Eagle (*Circaetus gallicus*) and a Nightjar (*Caprimulgus europaeus*) which flew off a nest containing 2 eggs – but no *oedippus*. Just as in UK the spring weather in Italy had been poor and the consensus view was that the season was late – in other words we were too early. A further search of a nearby site in the afternoon also proved fruitless for *oedippus* so we repaired to a nearby riverine site where we found numerous other species including more *Brenthis daphne*, Short-tailed Blue (*Everes argiades*), Southern White Admiral (*Limenitis reducta*) and a Lesser Purple Emperor (*Apatura ilia*).

A further visit to the first site on the following day again yielded no *Coenonympha oedippus* although as it was raining quite hard I doubt we would have seen them even if they had been on the wing! A post-script to this trip was that I received an email a couple of weeks later to say that there were numerous *oedippus* flying on the survey site. As it happened Martin and I were making a further butterfly trip to Italy at the beginning of July so we visited the site and found probably around 50 individuals within a 100 metre square. Although we were unable to carry out the mark and recapture census we have been able to validate the existence of this thriving colony which is threatened by road-widening. We also strengthened our contacts with Simona

and her team (for whom the *maturna* survey was also undertaken) which will no doubt lead to further cooperation in the future.

False Ringlet *Coenonympha oedippus*

Mike Prentice

Researching the Violet Copper's egg laying preferences in the Pyrenees - June 2012

Female Violet Copper *Lycaena helle*.

For 3 weeks in June 2012 I was researching the optimum habitat for the Violet Copper *Lycaena helle*, a butterfly restricted to areas of swampy land on glacial moraines formed behind retreating glaciers of the last ice age. Consequently it has a restricted distribution and an uncertain future in Western Europe (listed as endangered in Europe (Van Swaay, 1999)), with continued human pressures on its isolated swampy sites.

The species persists in the adjacent Pyrenean departments of the Ariege and Pyrenees-Orientales (PO). Recently the Ariegoise colonies' sizes seemed to have shrunk significantly in area and population. My aim was to check the reality of this apparent shrinkage and try to pinpoint the conditions permitting the PO sites to be more densely populated than those in the Ariege. The advantage of the study of adjacent sites is that they share similar weather conditions. Though the PO is a warmer and drier region than the Ariege, sites around Puymorens (PO) are also at the highest altitude, so wetter and cooler, permitting comparisons of the habitat differences.

This field study compared the current population size and distribution of the endangered **Violet Copper** *Lycaena helle* with that estimated by Graham Hart in 1995 and 1996 (Hart, G. 1997, unpublished MSc thesis) by mirroring his survey techniques. Graham wrote about that in the May 2012 edition of the EIG newsletter.

Some outcomes of this newer survey were straightforward. Numbers of Violet Copper are at low levels in the Ariege. The butterfly uses just one foodplant at all its Pyrenean sites, Bistort *Periscaria bistorta*; so its presence is essential and, as table 1 shows, it is decreasing in abundance. The adults of both sexes require nectar sources and males need trees or tall shrubs within 200m of the bistort, though females will wander up to 400m (there is disagreement in research on this point - Hart, 1997, Fischer, 1999, Chulunbaatar, 2009, Turlure, 2009). It may be an evolutionary adaptation, with the more northern populations in Western Europe being more sedentary and those of less disturbed biotopes being more mobile.

Table 1 *Numbers of leaves searched, eggs located and ratio of eggs per leaf, Hart, 1995, and Bowles & Hart, 2012*

Site name	Year of study	Noubals A	Noubals B	Noubals C	Noubals D	Mouilleres C	Mouilleres E	Puymorens meadow A	Puymorens meadow B	Puymorens Ski *above* A	Puymorens Ski *above* B	Puymorens Ski *below* A	Puymorens Ski *below* B	Puyvalador
Number of leaves searched	1996	74	2123	1995	814	1019	851							
	2012	129	773	292	246	273	270	863	337	105	164	498	550	358
Number of eggs located and *number of eggs per lea*	1996	33 *0.44*	26 *0.01*	29 *0.14*	2 *0.00*	37 *0.03*	46 *0.05*							
	2012	4 *0.03*	0 *0.00*	0 *0.00*	2 *0.00*	0 *0.00*	0 *0.00*	2 *0.02*	11 *0.03*	7 *0.06*	17 *0.10*	1 *0.00*	3 *0.00*	13 *0.03*

Female Violet Copper attempting to egg lay. In fact, though this leaf was apparent and unobstructed above, allowing her to perceive it and land upon it, she abandoned this attempt when the grass blade under her hindwing obstructed her backing under the leaf. Leaves had to be unobstructed above and below to meet the butterfly's needs.

Other outcomes were difficult to tease out of the accumulated data as the butterfly is adaptable (Steiner, 2006). Careful study of over 7000 bistort leaves, at ten sites, showed that it is not specifically seeking a single visually-defined egg laying position. Rather, it is seeking a position that meets certain parameters of foodplant condition, humidity and temperature.

Trends emerge from the data to show that the butterfly prefers to lay eggs in warm and humid (but not the wettest) micro-climates, on relatively broad basal leaves about 8cm. above the leaf

litter in which bistort often grows. The chosen leaf will be unobstructed yet surrounded by vegetation that rises to between 5-20cm. above it - i.e. it is in a depression.

Bistort leaves (right) protruding from grassy tussock into open space above dead litter: the largest leaf has an egg underneath

Comparison with the PO sites (and evidence from both further north in Europe and the vast unmanaged tracts of the Himalaya) suggest Violet Copper does best in sheltered, open (i.e. sunlit) damp meadows and wet rush-dominated grasslands. The butterfly lives where there is an overlap in conditions; wet enough and cool enough for the persistence of Bistort yet warm enough for the butterfly's life cycle to complete successfully.

In the Ariege stands of sufficient Bistort to support Violet Copper colonies grow in waterlogged swamps, wet forests and damp meadows at altitudes between 1500m and 1900m. At this altitude, with relatively short summer seasons, the inexorable succession from swamp to wet woodland is slowed (and grazing can halt it). At lower altitudes, mankind's intervention to drain wet areas has helped remove both bistort and butterfly.

Sites within the Ariege currently suffer from a variety of problems related to agricultural practises. (This is ironic, as agriculture allowed these sites to persist for so long.) Where grazing has continued, stock have concentrated themselves into small parts of the site and here grazing pressure has been too heavy, reducing tussock height and turf heterogeneity. While bistort plants cope with this initially, they tend to be smaller and less attractive to Violet Copper females. Repeated annual overgrazing removes much of the between tussock vegetation and leads to standing water in the poached ground between tussocks. Remaining areas of the site (which stock ignore) suffer as if the grazing had ceased (see below). When Graham did his initial work some of the previously overgrazed sites were in a period of grace, with bistort responding positively to reduced pressure; and the butterflies flourished.

Some of those sites have been 'abandoned' and too lightly grazed for 15 years. Cessation of grazing has allowed grass tussocks to enlarge and dominate all other vegetation types except scrub and tree species. So these sites have a lack of nectar and of bistort, but excessive and increasing amounts of scrub and shade.

We suspect that Violet Copper can persist in such habitat provided that the population of the impoverished habitats is bolstered by at least one flourishing site that can 'export' butterflies into the local metapopulation. Consequently, it seems that at least some of the Ariege sites need to

be managed to improve breeding success for the Violet Copper or the metapopulation may dwindle into extinction (Thomas, 2001).

An Ariege site (left), which held a burgeoning Violet Copper population 18 years ago, where grazing has ceased. 50m^2 of transects searched 1007 bistort leaves without finding a single egg. Grassy tussocks (of** Molinia caerulea**) have grown and excluded virtually all other vegetation, with the exception of tree species which are invading. Note the lack of nectar sources. June 2012

An Ariege site (below) where grazing has continued but is considered too heavy. Tussocks persist, the vegetation is varied and contains many nectar plants, but dead litter (between tussocks) has been removed. 40m^2 of transects searched 1271 bistort leaves and found 5 eggs. June 2012

Currently the studied Ariege sites are grazed as single units. It is strongly suggested that each should be compartmentalised. This would allow smaller plots where grazing pressures can be more closely controlled. Subtle alterations (to human eyes) are critical to the butterfly and could be achieved by scrub control followed by periodic hard grazing over parts of the site, with lighter autumn/winter grazing across the remainder. Without any human intervention the swamps will gradually turn to wet woodland and whilst Violet Copper can inhabit such woodlands, it can only do so at very low densities. Without associated open areas (with far denser populations), to perpetually 'top up' these woodland colonies, the survival of the Violet Copper is in doubt.

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Editors Note – Request for volunteers

Graham Hart is looking for further volunteers to continue the monitoring of the Violet Copper in the Ariege. He is looking for two to four volunteers to spend three or four weeks next spring in the Pyrenees surveying and doing transects. They have started habitat work at one of the main sites. There will be 14 to 20 transects to do counting eggs in quadrats, this year the maximum found was 17 in 10m squared, 16 years ago the maximum was 46. Where he is doing the habitat work the population has dived by 90 to 98%! The survey work will involve travelling around the area looking for adults then later eggs. He has found some accommodation that is not too expensive, about 160€ per week for an apartment that takes up to three, camping is also a possibility. The work will be throughout June. It is a wonderful area and a great project to be involved in.

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Surveying Violet Copper (Lycaena helle) in Romania – May 2012

The trip to Romania was organised in response to a request from Babes-Bolyai University that was circulated in the last EIG bulletin. It was not the usual "see as many species as you can in 7 days" trip, rather this was to help with the university's research programme by taking part in a mark/recapture experiment which investigated a population of Violet Copper (*Lycaena helle*). *L. helle* is now a rare butterfly so that the more we can find out about its ecology then the better placed we will be to conserve the species. The research was funded by the European Union and like most funding is limited so that a further tranche of funding will be needed and it may be easier to persuade the funders of the value of the work if interested people from other countries give up time and money to help with the research. As it was as well as two researchers from the university and a number of Romanian students, three of us went out from England and an Italian undergraduate joined us out there. Because of the number of volunteers we were able to get a much greater coverage of the extensive woodland site under investigation and we marked approximately 1500 individual specimens of *L. helle* in less than a week and achieved a recapture rate of approximately 20%. This is a good recapture rate but more to the point it is greater than the 15% needed to validate the computer programme which "number crunches" the results and gives the information needed.

Violet Copper *(Lycaena helle)* ©Martyn Davies

We did manage to see a number of other species, including many found in Britain but also a good number of non-British residents. A full list is included at the end of this article. However, it is important to remember that we spent 5 days in our Violet Copper wood and a further day was spent in the foothills of the Carpathian Mountains when the weather was too dull and at times too wet for butterflies to be flying. One day was spent in the beautiful limestone gorge called Turzii Gorge and a number of new species were recorded there which boosted our overall tally including Chequered Blue and Clouded Apollo. Although the wood was mostly stocked with butterflies found in Britain there were also many widespread European species present including Swallowtail and Scarce Swallowtail, Sooty Copper and an emergence of spring brood of Map Butterflies. Common Glider was also recorded in a few places in the wood and the first at least was quite co-operative when I tried to photograph it.

The importance of this trip, apart from the opportunity to visit a country that none of us had previously visited and work closely with some local lepidopterists, I hope is obvious. In Butterfly Conservation (Britain) we have a lot of documented expertise which is freely available to workers in any country. We also have a lot of volunteers who can and do much of the conservation work with guidance from regional officers and, at times, other society officers. The latter is a much rarer commodity in many European countries and it would be good if members of BC would go and help with projects such as the Romanian Violet Copper Project as and when the opportunities come along. This year there were a number of such requests in the EIG bulletin, hopefully, there will be more in years to come. I hope Simon Spencer won't be hurt in the stampede to sign up. We have the experience in Britain, other countries need it and I firmly believe we should get out and help when we can as a growing number of members are now doing.

Martyn Davies

Anthocharis cardamines	Orange Tip
Araschnia levana	Map Butterfly
Argynnis paphia	Silver-washed Fritillary
Boloria euphrosyne	Pearl-bordered Fritillary
Callophrys rubi	Green Hairstreak
Celastrina argiolus	Holly Blue
Coenonympha pamphilus	Small Heath
Colias crocea	Clouded Yellow
Colias hyale or C.ariensis	Pale or Berger's Clouded Yellow
Cupido osiris	Osiris Blue
Cynthia cardui	Painted Lady
Erebia medusa	Woodland Ringlet
Everes alcetas	Provencal Short-tailed Blue
Gonepteryx rhamni	Brimstone
Hamearis lucina	Duke of Burgundy
Inachis io	Peacock
Iphiclides podalirius	Scarce Swallowtail
Lasiommata megera	Wall Brown
Leptidea sinapis or L.reali	Wood White
Lycaena helle	Violet Copper
L.tityrus	Sooty Copper

Neptis sappho	Common Glider
Nymphalis antiopa	Camberwell Beauty
Ochlodes sylvanus	Large Skipper
Papilio machaon	Swallowtail
Pararge aegeria	Speckled Wood
Parnassius mnemosyne	Clouded Apollo
Pieris napi	Green-veined White
Polygonia c-album	Comma
Polyommatus icarus	Common Blue
Pontia edusa	Eastern Bath White
Pseudophilotes vicrama	Eastern Baton Blue
Pyrgus malvae	Grizzled Skipper
Scolitantides orion	Chequered Blue
Vanessa atalanta	Red Admiral
Aporia crataegi	Black-veined White

EIG Fund-raising Tour to Serbia June 17-24 2012 - Some of the Best Butterfly Sites in Europe

This tour was organised by Mike Williams on behalf of the European Interests Group of Butterfly Conservation in cooperation with Green Eye Tours and supported by Habiprot, a Serbian NGO. All the profits (Euros 6795) from this highly successful trip were donated to the Hungarian Natural Heritage Trust, helping to conserve butterflies and their habitats in the Orseg region of Hungary. This Trust, managed by Safi Szabolcs, is a very good example of effective, local conservation in action and, in the last few years, the **EIG has helped raised almost 20,000 Euros which has enabled the Trust to purchase several hectares of land as well as important tools and equipment.**

The object of the tour, in addition to fund-raising, was to visit a number of the 12 Prime Butterfly Areas in Serbia, targeting some of the 57 Serbian Red Data Book species.
The EIG team comprised Mike Williams, David Porter, Tony Simpson, Martin Catt, Ken Bailey, Ann Hadfield, Lawrie and Bridget de Whalley and myself (Ian Duncan). We were ably supported by Safi, Tomas and Martin from the Hungarian Natural Heritage Trust. Bernard Watts joined us for a few days at the end of the trip.

Serbia is located in the central Balkans and, as a result, has a long and colourful history. After a troubled recent past, the country is now opening up to tourism and, from our experience, is well on the way to recovery, with a good road network and comfortable hotels.

The landscape is very varied from flat plains in the north (steppe) to rolling hills in the south, with mountains and limestone gorges a feature of the east. This results in a wide range of habitats including montane, forests, lakes and meadows. Compared to Western Europe, low levels of industrialisation and high-tech agriculture have left many areas relatively undisturbed. Serbia is therefore characterised by a wealth of biodiversity both at species and ecosystems level. For example, 90 species of mammal, 70 species of reptile, around 380 bird species and over 200 species of butterfly have been recorded.

As the bird recorder on the trip, I regret to say this was the first trip I have been on when more butterfly species (124) were seen than bird species (72). However, we did see a number of East Europe specialities including Pygmy Cormorant, Long-legged Buzzard, Roller and Semi-

collared Flycatcher. It was interesting to see large numbers of House and Tree Sparrow as well as good numbers of Corn Bunting, to me always a sign of a healthy countryside.
We had excellent weather throughout with temperatures in the low 30s apart from a thunderstorm on one of the days.

What follows is a diary with highlights. The full species list and details of all the sites can be obtained from Mike Williams. It should be noted that after each species mentioned a number in brackets shows the number of sites this species was recorded out of a total of 19 sites. This provides an indication of the abundance and distribution of each species.
A breakdown of the 124 species is as follows:
Hesperiidae 13, Papilionidae 5, Pieridae 12, Lycaenidae 34, Nymphalidae 37 and Satyridae 23.

Day 1 Leaving Vrsac, our overnight stop, a 40 minute drive brought us to the Deliblato National Park. This is a UNESCO World Heritage Site covering a unique habitat of sand dunes known as the "Pannonian Sahara". The target species Zephyr Blue (*P.sephirus*)(1) was found although the rather worn individual suggested the season was almost over, probably as a result of the very warm weather in May and June so far. Noisy Bee-eaters, a single Hoopoe, several Red-backed Shrike and a Long-legged Buzzard made this one of the best bird sites on the trip.

Day 2 Drive from Vrsac to Donji –just over 200km.
A stop by the River Danube on route delivered an elusive Freyers Purple Emperor (*A.metis*) (1) with Camberwell Beauty (*N.antiopa*) (3), Scarce Swallowtail (*I. podalirius*) (11), Common Swallowtail (*P. machaon*) (9), Mallow Skipper (*C.alceae*) (5) and Lesser Fiery Copper (*L.thersamon*) (3).

Leaving the plains, the next stop was in a wooded valley teeming with butterflies. 33 species were seen in a couple of hours including 10 species of fritillary. Stunning views of Purple Emperor (*A.iris*) (5), Lesser Purple Emperor (*A.ilia*) (7), Large Tortoiseshell (*N. polychloros*) (5), and Common Glider (*N.sappho*) (4) were obtained.

An excellent dinner by the Danube with particularly good fish soup and the now famous Serbian grill was followed by watching England beat Ukraine in the European Championships. We were the only England supporters in the lounge!

Day 3 40 kms drive from Donji to the prominent limestone Mount Stol.
At a stop on route, we witnessed a small passage of Cardinal (*A.pandora*) (7),
Large Tortoiseshell and Lesser Purple Emperor, which Safi believed were butterflies migrating along hill tops and woodland rides.

Mount Stol proved another stunning habitat with flower rich meadows and over 600 metres in elevation. This site yielded 43 butterfly species including Lesser Lattice Brown (*K.climene*) (1), which Safi remarkably spotted on a tree trunk from a distance while the rest of us struggled to see this well camouflaged butterfly even at close range!

Other highlights included Tufted Marbled Skipper (*C. flocciferus*) (2), the beautiful Yellow-banded Skipper (*P. sidae*) (4), Black-veined White (*A. crataegi*) (8), Purple-shot Copper (*L.alciphron*) (4), Alcon Blue (*P.alcon*) (3), Turquoise Blue (*P.dorylas*) (1), and Balkan Marbled White (*M.larissa*) (1).

Day 4 Drive from Donji to Pirot -200 km**.**
Several stops during the day bringing the now expected clouds of butterflies and other insects. New trip butterflies included Lattice Brown (*K.roxelana*) (2), Twin-spot Fritillary (*B.hecate*) (2), Lesser Spotted Fritillary (*M.trivia*) (3), Eastern Rock Grayling (*H. syriaca*) (1), and Russian Heath (*C.leander*) (1). Eleven species of fritillary were recorded.

Day 5 Drive to the recently opened ski resort at Babin Zub, at over 1500 metres**,** in Stara Planina National Park, on the trail of the False Comma (*N.vau-album*), a rare and declining species in Europe.
Explored some beautiful alpine meadows which yielded Balkan Green-veined White (P.halcana) (1), Balkan Copper (*L.candens*) (1), Bog Fritillary (*B.eunomia*) (1), and the only Pearl-bordered Fritillary (*B. euphrosyne*) of the trip but no sign of the False Comma. 6 species of Ringlet were recorded including Large (*E.euryale*) (1), Bright-eyed (*E.oeme*) (1), Almond-eyed (*E. alberganus*) (1) and Bulgarian (*E.orientalis*) (1).

Descending the mountain, the lead van screamed to a halt and Safi dashed out with his ever-present net in hand. He had spotted a False Comma! Sadly, it was never seen again and this turned out to be the only sighting on the trip! Matt Rowlings of European Butterflies website fame was also in the area at the same time but also failed to get any good sightings. Perhaps we were too early in the season?

Day 6 Further exploration in the National Park, in particular in the region of Topli Dor, a lovely unspoilt secluded valley, which for me yielded the species of the trip, Poplar Admiral (*L. populi*) (1), a butterfly which has long eluded me and I was not disappointed.

Day 7 back to Belgrade 240 km.
Stop at Jelasavica Gorge, an area of varied habitats including arid hillsides.
More new species with Lulworth Skipper (*T.acteon*), Idas Blue (*P.idas*), Chapmans Blue (*P.thersites*), Anomalous Blue (*P.admetus*), Southern White Admiral (*L.reducta*) and Great Sooty Satyr (*S.ferula*). This area was also notable for both Common (*N. sappho*) and Hungarian Glider (*N.rivularis*) (3).

Another spectacular butterfly tour organised by Mike with over 120 species seen in a week. On a personal level, it was pleasing to add to the sparse knowledge of butterflies in Serbia, add 12 lifers to my list, while at the same time raising funds for conserving butterflies in Hungary. What more could you ask for on a butterfly trip?

Ian Duncan

Next year's EIG fundraising tour, again being run in conjunction with Greeneye Ecotours, is to Romania from 20-28 July, 2013 (provisional dates) targeting species such as Violet Copper (*Lycaena helle*) and Danube Clouded Yellow (*Colias myrmidone*). To reserve a place and for further information contact Mike Williams by email: mike@stagborough.fsnet.co.uk Basic cost including all accommodation, food and transport is £1,345 + £150 single supplement. Flights are additional and will need to be booked individually. Mike is also running private trips to Madagascar next March and to Estonia in early July and is happy to supply details to anyone interested."

Fieldwork in Spain's Sierra Nevada for Nevada Blue (Polyommatus golgus) and Zullich's Blue (Plebejus zullichi) Late July 2012

We volunteered for a week's fieldwork with this project, which is organised by Miguel Munguira from the Universidad Autónoma de Madrid and funded by MAVA. The project's aims are:

- To improve knowledge on threatened species and those of particular conservation interest through targeted monitoring and research.
- To undertake emergency actions and campaigns for species under immediate threat.
- To promote systematic networking efforts at the Mediterranean level to facilitate exchange of know how.

As well as Nevada Blue *Polyommatus golgus* and Zullich's Blue *Agriades zullichi*, the project also covers the Andalucian Anomalous Blue (*Polyommatus violetae*), but the fieldwork for this was carried out the week before we arrived. Also included is the Spanish Greenish Black-tip (*Euchloe bazae*), but as this is a spring species the fieldwork will start next year.

A. morronensis ovae

We arrived on the Sunday and after transferring to our hotel near Granada explored the Genil Valley for a few hours. On a dry slope we found a sole Hermit (*Chazara briseis*), which was to prove the only one of the trip, along with Spanish Gatekeeper (*Pyronia bathseba*) and rather worn Iberian Marbled Whites (*Melanargia lachesis*). Down by the river there was some mud puddling, with Long-tailed (*Lampides boeticus*) and Lang's Short-tailed (*Leptotes pirithous*) Blues quite numerous, while beautifully fresh Puple-shot Coppers (*Lycaena alciphron*) and Sage Skippers (*Syrichtus proto*) were nectaring nearby.

Next day, Miguel was not due to arrive until early afternoon, so we decided to explore higher up and took the main road up Veleta mountain. On a dry slope at about 1500m we found our first Black Satyr (*Satyrus actaea*) – numerically this was going to be the dominant butterfly of our time in the mountains, with probably several hundred seen. We then descended back to the hotel to meet Miguel and his team – Enrique García-Barros, who is also a professor at the university and a Satyrid expert, Sara, Irene and Juan-Pablo. After a quick lunch it was back up Veleta, but this time through the barrier with our pass and up beyond 2500m where we stopped at a known *golgus* site. Miguel showed us the *golgus* foodplant, which is Kidney Vetch (but very small in these exposed, high altitude places) and lo and behold the first plant had a *golgus* egg! Miguel then showed us Spanish Argus (*Aricia morronensis*) foodplant and his luck was really in, because there was an egg too! However, the weather was not so good as mountain cloud had built up and there were few butterflies around, a couple of Spanish Brassy Ringlets (*Erebia hispania*) being the highlight, prior to a late appearance of a worn female *golgus*. We then had a quick trip on the tarmac road up towards the summit, seeing the environmental damage caused by the ski station, but also good views of Spanish Ibex

On the Tuesday we were taken out by Park Rangers led by José Miguel Barea, who promised to show us the "real" National Park. The initial news from the Rangers was not so positive though, they were pretty sure that *zullichi* was over. Although there had been plenty of snow in the winter, the Spring rains had not come, everywhere was already quite dry and the season was probably ahead of normal. We set off in our vehicles, quickly got onto dirt road, passing through a normally locked barrier and finished up at a refugio at about 2500m. Then it was off on foot, higher still into the mountains, where mountain cloud was to be a problem all day, circulating the higher peaks and giving us alternating sun and cloud. After about an hour we arrived at an area with *zullichi* larval foodplant, but *morronensis* foodplant was also widespread and as soon as the sun came out, adults of the latter were on the wing. Miguel and his team carried out their larval foodplant counts in 10 metre squares, while one of the rangers successfully searched for *zullichi* eggs – these are usually quite hard to find as they are buried in the vegetation somewhat, but three eggs were found on a single plant, one of which had already hatched. On the few nearby nectar flowers were a couple of Spanish Brassy Ringlets (*E. hispania*) and these would prove to be the last individuals of this species we would see. Miguel and Enrique said that they had never found this species in the large numbers that its Brassy Ringlet cousins of the Pyrenees and Alps are, and that to find a few tens together was

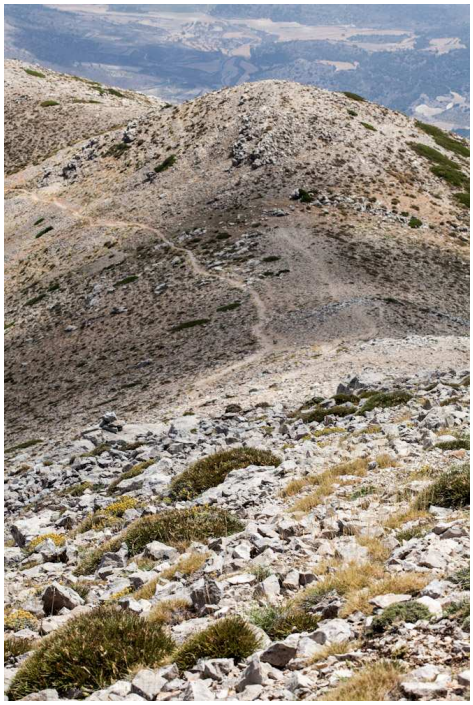
good. Hugo also spotted a lone *Parnassius apollo*, but this species was also nearing the end of its flight season.

We then moved on, through stunning mountain scenery, to a place where *golgus* would hopefully be found. This was a wet flush with relatively abundant nectar and sure enough two or three male *golgus* were flying there, along with at least one male *escheri*. Miguel explained that he believed *golgus* had quite large populations in the Sierra Nevada, but that the butterflies were spread over huge areas and thus were never seen in great numbers. We then completed our circular walk back to the cars, picking up another worn female *golgus* on the way, before thanking the rangers for a superb day and returning to our hotel.

Nevada Blue *(P.golgus)*

Next day, another mountain top, this time with about a 500m vertical climb to get there, a sign of things to come! The top was quite windswept and this is surely something of a requirement for *zullichi*, *golgus* and *morronensis* as their foodplants seem to positively thrive in this type of habitat. This particular mountain was truly amazing, hundreds of square metres of loose, slate like rock fragments, literally carpeted in *morronensis* foodplant. And when the sun came out the *morronensis* were there, in huge numbers, maybe thousands of them (they were of the *ramburi* subspecies, as were the ones we saw elsewhere). Again *zullichi* foodplant was also in evidence, but no confirmed adults were recorded. Miguel told us that the *zullichi* males were unlike their *glandon* cousins in that they never seemed to venture down the mountain for nectar or salts, but remained in their mountain top habitat all the time. A big storm rumbled 20-30km away to the west but we were spared a soaking, which we would surely have got in such an exposed place. We then descended and on our way back to the hotel we stopped at a site for Nevada Grayling (*Pseudochazara hippolyte*), but none were found and it began to look, to Enrique's surprise, that this species was also over. We did have a few false alarms however, as a pale form of Black Satyr (*S. actaea*), not shown in many field guides, has many of the visual characteristics of *hippolyte*.

Thursday saw our highest climb, about 1000m to get to the top. While we were walking through the forest on the lower slopes, Miguel pointed out a good example of *Aricia montensis*, now considered a separate species and replacing *A. artaxerxes* in southern Spain, much as *A. cramera* replaces *A.agestis*. Often, a clear identification between *montensis* and *cramera* is not possible in the field, as there is considerable overlap in visual features, but distinct individuals like the one we saw can also be found. After about a 3 hour climb we reached the summit and here there was a near gale blowing, with significant wind chill. In the odd sheltered hollow with the sun and some nectar a butterfly could be found, but we largely had to content ourselves with larval foodplant surveys. However, a few of the party lingered at the top a little longer and the wind briefly dropped, bringing out a flush of *morronensis* and also three worn female *apollo*. On the descent, *Hyponephele* were quite common, as they were on most of the mountains we visited, although not in the numbers that Black Satyr (*S. actaea*) were.



Near the summit* of *La Sagra

Females of both *H. lupina* (Oriental Meadow Brown) and *H. lycaon* (Dusky Meadow Brown) were recorded.

We then left the Sierra Nevada for a brief visit to the La Sagra area, the best part of 100km to the north. The area however shares much flora and fauna with the Sierra Nevada and although *zullichi* is not present there, golgus is, in the form of the *sagratrox* subspecies. *sagratrox* is considered a distinct species by some, but Miguel believes its lighter underside ground colour is just a result of natural selection, due to the very pale limestone rocks on which it perches on La Sagra. La Sagra itself is a distinct, pyramidal mountain and we were joined for our 850m ascent by Juan-Carlos, a botanist and colleague of Miguel and Enrique. However, our party was split so that we could between us also explore another mountain home of *sagratrox*, Guillimona.

The La Sagra party set off early to avoid the heat and quickly came across the larval foodplant and adults of Andalucian Anomalous Blue (*Polyommatus violetae*). Miguel explained that there were only three (brown male) Anomalous Blues in Spain, *riparti* in the north, *fabressei* in the centre and *violetae* in the south. All three species can be found with and without the under hindwing "stripe", so this cannot be used as a diagnostic feature. There is some overlap in distribution between the three species, but at La Sagra we were firmly in *violetae* country. Nearing the summit we came across a worn female *golgus*, then started to pick up the odd male patrolling for females. The males were almost impossible to approach closely and only landed very briefly; you were lucky to focus your binoculars to confirm identification and photography was near impossible. Lunch at the summit saw plenty of Large Wall Browns (*Lasiommata maera*) and we signed the Visitors' Book, then we carried out a mini transect of *golgus* adults at the start of our descent, recording about ten males. This extreme butterflying day was then completed by a 400m descent in only 800m on a scree slope back into the forest belt, followed by some leisurely photography of the abundant *violetae*. Neil had hoped to look for Southern Hermit (*Chazara prieuri*) here, as La Sagra is mentioned in some books, but Enrique thought this was unlikely and seemed doubtful about the records – in fact he said that the butterfly was now quite difficult to find in Spain, outside of its well known area. However, a final bonus was to be found on the lavender border of a nearby hotel with many tens of nectaring butterflies, including Cleopatra (*Gonepteryx cleopatra*) and Spanish Chalkhill Blue (*Polyommatus albicans*).

P. violetae

The Guillimona party had a slightly easier climb to their summit, but the news was not good in that grazing was heavy and no *golgus* were seen. In fact the foodplant density was so poor that Enrique decided not to carry out a survey. One bright note was a colony of *morronensis*, one that Miguel was not aware of. Bumping into a family of wild boar provided a moment's excitement - for both parties!

After the two parties reunited at our hotel later that day, Miguel and his party had to return immediately to Madrid so Hugo and Neil said their thank yous and goodbyes. The next day, as Hugo had been with the Guillimona party and had not seen *violetae*, we returned to the hotel lavender hedge and it did not disappoint, with superb photography opportunities including a

couple of *violetae*. We then made our way back towards Granada, stopping to try and find Andalucian False Grayling (*Arethusana boabdil*) but to no avail. Enrique had already commented that he was surprised we had not seen this butterfly earlier, maybe it was over already?

Then further west on the Sunday, stopping to look for Desert Orange Tip (*Colotis evagore*) near Orgiva but again to no avail, although the foodplant was plentiful. As we had only seen a single Painted Lady (*Vanessa cardui*) during the trip, maybe migration from North Africa had been poor thus far? Hugo then dropped Neil off at Malaga airport on the Monday morning and went up into the hills for the rest of the day, turning up a lovely area with Two-tailed Pasha (*Charaxes jasius*), Cardinal (*Argynnis pandora*) and Cleopatra (*Gonepteryx cleopatra*) on the wing before returning himself to the UK that night.

Many thanks again to Miguel, his team and everyone else who helped, we had a fantastic time! And there may be opportunities to help Miguel with his fieldwork in 2013 and 2014, watch the EIG Newsletter for details!

Hugo Brooke and Neil Thompson

Links

It might perhaps be of interest to some members that Michael Selwood has a website page devoted to following the (mis)fortunes of a swallowtail larva colony.

www.lafuentecilla.net/page59.html

Currently he is adding a sequence of images of developing swallowtail eggs.
These are in a zone that one might not expect, in view of the conventionally acknowledged inability of male swallowtails to be fertile in an arid environment.

Entomologica romanica (Romania)
I would like to take this opportunity to recommend the Journal "Entomologica romanica" for submitting your next publication. Entomol. rom. is included in the Thomson Reuters scientific data base (ISI). The journal is fully peer reviewed, it is available on line (http://www.lepidoptera.ro/) with open access, no page charges, no charges for colour.

Peter Eeles trip report for Switzerland
http://www.ukbutterflies.co.uk/reports_switzerland.php

Butterfly monitoring in Europe
Butterfly Monitoring in Europe - article in La Canada, the magazine of the European Forum for Nature and Pastoralism with which BC is closely allied in influencing EU policy
Volume 28, is now available online at http://www.efncp.org/download/la-canada28.pdf
<http://api.elasticemail.com/tracking/click?msgid=llkr51-ecjwfa34&target=http%3a%2f%2fwww.efncp.org%2fdownload%2fla-canada28.pdf>

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