Corfu Butterfly Conservation members



Red Admiral



Cleopatra female



Speckled Wood on Echium candicans

The Corfu Butterfly Year

In this article I thought it might be interesting to write less about **Corfu Butterfly Conservation** (**CBC**) and more about what our organisation has learnt. At the time of writing, the **Corfu Butterfly Survey** (**CBS**) has been running for two years (1st January 2021 to 31st December 2022) and the accounts which follow are based on observations made over the course of this two-year period. With only two years' worth of records, we have quite a way to go before we can produce accurate distribution maps of each butterfly species on the island.

However, we have collected enough information to be confident about when each species is at the peak of its flight season. The species richness of each month described below were calculated from the combined totals of the sightings made during that month in 2021 & 2022. So, using this data, I thought it would be interesting to write a general guide about when some of the butterfly species can be seen in Corfu.

January: Remarkably, there is not a day in the year when you can't expect to see a butterfly on the island. For example, on the 1st of January 2023, participants of the CBS recorded 39 butterflies belonging to four different species, although with the unusual temperature of 23 °C recorded in central Corfu, such results are not surprising. January is usually mild and wet and during 2021 and 2022 recorders logged a total of 7 species of butterfly in the CBS, through the CBC website

(www.corfubutterflyconservation.org). The species with the highest abundance was the Red Admiral Vanessa atalanta. At this time of year, the butterfly may turn up as slightly damaged specimens, but many individuals look newly emerged. In fact, there is now evidence to suggest this species may be found in all stages of its life cycle during much of the year. Second in abundance was the Speckled Wood Pararge aegeria, which was followed by the Clouded Yellow Colias croceus, Large White Pieris brassicae and Painted Lady Vanessa cardui. Obviously, most of these winter species were migratory but there is no evidence that this is the case for the Speckled Wood.

February: The weather in February is rarely dissimilar to January. Consequently, it's quite surprising that the butterfly species richness recorded by the CBS increased to 21 species. This increase was presumably partially triggered by a gradual increase in day length. The most common species were the Clouded Yellow, followed in order of abundance by the Red Admiral, Speckled Wood, Cleopatra Gonepteryx cleopatra and Large White. The remaining sixteen species were present in low numbers. Interestingly, no species were seen at their peak abundances during January or February.

March: Given the steep increase in the number of species seen in February, it can be of no surprise that March sees an even greater increase, this time to 29 species. The most abundant species was still the Clouded Yellow, which was followed by the Speckled Wood. However, this is the first month of the year that sees a peak in one species' annual abundance. There is no other time during the Corfiot year when the Speckled Wood can be seen in greater numbers. This contrasts sharply with the phenology of this species in the northern temperate regions of Europe. For example, in the UK its abundance peaks in August. This was the first indicator that the climatic seasonal variation experienced in Corfu leads to different phenologies for its butterfly species as compared with those same species found in northern European.

April: For those who have lived for lengthy periods of time in the tropics, the turning of the seasons from dry to wet is no compensation for the seasonality seen at higher latitudes. The Corfiot spring, in particular, is a remarkable sight to behold. By April, colourful wildflowers are abundant, and this is especially true of the orchids. The landscape is bathed in the fresh limegreen canopy of native trees and shrubs, amidst the dominant silvery verdant leaves of the Olives, tall dark spires of the Mediterranean Cypress and the sharply contrasting raspberry coloured blossom of the Judas tree. Consequently, April and May are my favourite times of the year to travel to the island.

By now the island's biological alarm clock is ringing loudly, with 41 species of butterfly recorded by the CBS, eight of which were at their peaks in abundance during this month. The most notable addition of these eight species is the Southern Festoon **Zerynthia** polyxena. This is the quintessential early spring butterfly, having made its first appearance in February. Its hirsute body is supremely adapted for flight at low temperatures, which can be experienced at this time of year. This insect can be commonly found in damp habitats and it is delightful to watch it lay its pearl like, creamy coloured eggs on its host plant, Roundleaved Birthwort Aristolochia rotunda. The flurry of butterfly species that follow, which are also at their peaks in abundance, include: the Wood White Leptidea sinapis, Orange Tip Anthocharis cardamines, Grecian Copper Lycaena ottomana, Green Hairstreak Callophrys rubi, Holly Blue Celastrina argiolus, Large Wall Brown Lasiommata maera, and Wall Brown Lasiommata megera.

May: Corfu becomes the Mecca for visiting butterfly enthusiasts during May, when in total the CBS recorded 66 species. At this time 34 species are at their peaks in abundance. The two species showing super abundance are the Meadow Brown Maniola jurtina and the Glanville Fritillary Melitaea cinxia. Whilst an understanding of the factors leading to high abundance in Meadow Brown populations have always eluded entomologists, its likely that the large numbers of Glanville Fritillary are a strategic response which has evolved to cope with mortality caused by parasitism.

My first ever visit to Corfu was on the 5th May 1976 and it was on this trip that I observed the **Southern Swallowtail** *Papilio alexanor* for the very first time. Subsequently, I've always been particularly fond of this insect, which is why, coincidentally, it is the butterfly species on the Corfu Butterfly Conservation logo. It was only last year that we were able to confirm *Scaligeria napiformis* as one of this species hostplants, thanks to help from Ted Chapman and Daniel Cahen from the Royal Botanic Gardens, Kew. We also know that its caterpillars also feed on plants from the genus Opopanax but which particular species remains unknown.

May is in fact the month when all three species of Swallowtail are found at their peaks in abundance, in Corfu. The other two species being the **Scarce Swallowtail** *Iphiclides podalirius* and the **'Common' Swallowtail** *Papilio machaon*. Ironically, in Corfu the Scarce Swallowtail is far more common than is the 'Common' Swallowtail.



Southern Festoon, Trevor Davenport



Green Hairstreak



Glanville Fritillary



Southern Swallowtail, Gillian Elsom



Eastern Baton Blue on Salad Burnett



Southern Comma



Sage Skipper



Oriental Marbled Skipper

Other butterfly families with species at the peaks of their abundances include 7 species of Hesperiids (Skippers), 8 Pierids (Whites), 8 Lycaenids (Blues) and 7 Nymphalids (Brushfoots) including the Meadow Brown and Glanville Fritillary. Notable species include, the Hungarian Skipper Spialia orbifer, Grizzled Skipper Pyrgus malvae, Lulworth Skipper Thymelicus acteon, Eastern Orange Tip Anthocharis damone, Southern Small White Pieris mannii, Small Blue Cupido minimus, Mazarine Blue Cyaniris semiargus, Southern White Admiral Limenitis reducta, Nettle-Tree Butterfly Libythea celtis and the Lattice Brown Kirinia roxelana.

June: By June the warmer and dryer conditions clearly begin to influence the butterfly communities of the island. The species richness recorded by the CBS saw a reduction for the first time during the year, in this case by 5 species on the previous month, giving a total 61 species seen in June. This is also the first month in the year to see a reduction in the number of species at their peaks in abundance. However, notable peak species included: the Cleopatra Gonepteryx cleopatra, Krueper's Small White Pieris Krueperi, Eastern Baton Blue Pseudophilotes vicrama, Large Tortioseshell Nymphalis polychloros, Balkan Marbled White Melanargia larissa and Delattin's Grayling Hipparchia volgensis. Walks in the upland areas of the island during this month can reveal unbelievably high abundances of the Balkan Marbled White and this is something that must be seen to be believed.

July: A visit to Corfu in July and August will reveal the island at its hottest and driest. Traditionally, the time when by day, the tourists cover the popular beaches and by night, they populate every restaurant and bar. Unless you are interested in observing one or two obscure species, these are not the months for naturalists to visit the island. Although it is possible to see 50 species only three species of butterfly reach their zenith in abundance, these include the Long-tailed Blue Lampides boeticus, Cardinal Argynnis pandora and the Southern Comma Polygonia egea. In Corfu the Cardinal is infrequently encountered and currently we have so few records (7) that it is difficult to determine if it has a breeding population on the island or if it's just a migrant from the mainland. In contrast, the Southern Comma is far more frequently encountered and although it peaks in July, it can still be reliably encountered all the way into October.

August: By August the landscape is looking bleached and very tired. Much of the vegetation is brown and of little use to the larvae of butterflies. The blistering heat makes entomology difficult because its unwise to be in the direct sunlight for too long. Although 42 species were recorded by the CBS during this month, unsurprisingly, only three species of butterfly were at the pinnacles of their abundance during August. These include the Sage Skipper Muschampia proto, Lang's Short-tailed Blue Leptotes pirithous and the Tree Grayling Hipparchia statillinus. In the highlands of Corfu, the Sage Skipper populations reach sizes that are even greater than the June populations of the Balkan Marbled White. The magnitude of the Sage Skipper populations near Mt. Pantokrator can be so great, that they can irritate you in the same way that flies do, especially if you are trying to observe other butterfly species. In contrast, the Tree Grayling, a near threatened species, is present at very low abundance levels (15 sightings over the past two years).

September: At this point in the year the island is beginning to cool down and intermittent rain starts the process that many Corfiots describe as the second spring. Although, no species of butterfly peaks in its abundance during the month of September, a species richness of 46 was recorded over the first two years of the CBS. In response to this shift in climatic conditions, some species begin to reveal a bivoltine phenology, with increases of abundance indicating the emergence of a second brood (see figure 1). Examples include, Oberthür's Grizzled Skipper Pyrgus armoricanus, Wood White, Holly Blue, Meadow Brown, Silver-washed Fritillary Argynnis paphia, Eastern Rock Grayling Hipparchia syrica and Delattin's Grayling.

October: By October the temperature becomes far more comfortable and the eagerly anticipated rains often return with a vengeance, along with some strong winds. However, do not let these climatic conditions put you off visiting the island during October. Now the second spring is at its apex, which encourages an abrupt re-emergence of many wildflower species. The CBS recorded 47 species of butterfly during this month, 4 of which were at their peaks in abundance. Perhaps, surprisingly, it's during this month that the Red Admiral reaches the climax in its abundance. I suspect that migrants lay eggs earlier in the year and the resultant adults aestivated during the summer before emerging just in time for the Aromatic Inula Dittrichia viscosa to come into flower. This plant is abundant on disturbed ground and their flowers are the best place to look for the other three butterfly species at their abundance peaks: the Pygmy Skipper Gegenes pumilio, the Mediterranean Skipper G. nostrodamus and the Plain Tiger Danaus chrysippus.

November and December: There are no species at their peaks in abundance during these two months, but the CBS recorded 27 species in November and 16 species in December. Perhaps the most notable record during this survey period was a sighting of the Camberwell Beauty Nymphalis antiopa made by Jane Barry on the 3rd November 2022. We have intermittent records for this species going back over the last nine years but never enough to convince me that in Corfu this mostly continental butterfly is represented by anything other than migrants from the mainland. One of Corfu Butterfly Conservation's goals is to encourage ecotourism on the island. If this account has whetted your appetite to explore the butterfly assemblages of Corfu perhaps you would like to join us in the May of 2023? For more in formation see: https://greenwings.co/our-holidays/butterfly-holidays/butterflies-of-corfu/



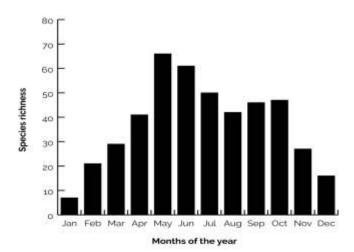
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All photographs by Dan Danahar unless otherwise stated.

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The monthly butterfly richness of Corfu



Oberthur's Grizzled Skipper, Bri Smith



Mediterranean Skipper, diagnostic bristles



Camberwell Beauty, Giannis Gasteratos