

Crambus hamella Thunb. was also taken. During the evening we were bothered by a number of hornets arriving on the sheet and a keeper who arrived to check our credentials informed us that hornets had been scarce this year—just our luck to be invaded!

The following morning I took a further *R. saccharia* from the window of a campsite building and the day turned out again very warm and sunny. Butterflies, particularly *V. atalanta* and *A. urticae*, were very common. Night-time operations at Hollands Wood were somewhat marred by bright moonlight; however 28 species of macro were recorded, including a further *C. siterata*, several *Cyclophora punctaria* L. and late specimens of *Noctua fimbriata* Schreber and *Lymntria monacha* L. The "ablutions blocks" produced three specimens of the immigrant pyrale *Udea ferrugalis* Hübn.

A weekend in Chipping Norton in mid-September produced very little of interest, despite warm weather. The most notable feature was the number of *V. atalanta* at ivy bloom in several localities, up to 20 being seen on one small clump. On our return to Hertfordshire I operated the portable m.v. lamp in the Symondshyde area. A stiff breeze kept numbers of species down, but quality more than made up for quantity, single specimens of *Dryobotodes eremita* F., *R. saccharia* and *Xanthia aurago* D. & S. being notable among only 14 species. Little of interest was taken in the next fortnight, apart from a couple of *Larentia clavaria* Haw. in the Robinson traps locally. The weather was rather unsettled and cold until the end of the month.

Rather warmer weather on 2nd October prompted me to drive down to Portland for an evening. A stop at St. Leonards, near Ringwood, produced a specimen of *Aporophyla nigra* Haw. at rest and I arrived in Weymouth in the late afternoon. A stiff sea breeze was blowing, and in the evening this picked up considerably so I was forced to find a sheltered spot to operate the lights. Most of the species I had come for put in an appearance, but in very small numbers. Three *Mythimna l-album* L. were early arrivals to the m.v. and later a couple of *Leucochlaena oditis* Hübn. arrived; another welcome visitor was a specimen of the very grey local form of *Polymixis flavicincta* D. & S. We operated the actinic light over a Robinson trap and in this way captured single specimens of *Aporophyla australis* Bois. and *A. nigra*. Ivy bloom was disappointing with one *L. oditis* being the only thing of interest.

The final trip of any distance in 1973 was to Suffolk on 5th October where m.v. light a couple of miles from Tuddenham produced a good assemblage of macros of 21 species. *Chenias legatella* D. & S. occurred among broom bushes and later came readily to the light. *X. aurago* was common but becoming worn and a number of species I seldom see turned up during the course of the evening. These included *D. eremita* (five specimens), *Dichonia aprilina* L. (one), *Rhizodra lutosa* Hübn. (two) and *Thera firmata* Hübn. (one).

A Fortnight's Collecting in Greece
July, 1974

By C. G. M. DE WORMS,
Three Oaks, Shore Road, Woking, Surrey
and R. F. BRETHERTON,
Folly Hill, Birtley Green, Bramley, Surrey
PART I: By C. G. M. DE WORMS

The butterflies of Greece never seem to fail in interest or attraction with something novel usually appearing on each visit. It was with the intention of finding out what was on the wing in some of the mountainous regions at a rather later date than we had been there before that we once more set out on the night of 7th July. It was my third venture to that delectable country and the seventh of Russell Bretherton. We reached Athens about midnight and put up at the Alpha Hotel which was to be our haven later on. On the morning of the 8th we were visited by Mr. John Coutsis who was delighted to see us for the first time since 1971 and was able to give us a lot of very helpful information. After picking up a very efficient little Volkswagen we set out once more for the Peloponnese. Our first stop was at the junction of the road to Delphi where around the colourful bushes of Chaste Tree (*Vitex agnus-castus* L.) was flying *Iphiocides podalirius* L. with a number of *Plebeius argus* L. Our next halt by the side of the autoroute near Megara provided a surprise with three examples, all females of the smallest European butterfly, *Freyeria trochylus* Freyer. This tiny Lycaenid was very hard to see in the tall grass. Nearer Corinth a halt among some fir trees bordering the main road produced some fresh female *Hipparchia jatua* Freyer, a very handsome insect. After a refreshing bathe in the Gulf of Corinth we began ascending the tortuous road to Kalavryta which had only been completed shortly before our 1971 visit there. We again stopped by some fir woods just below the Megaspeleion Monastery. In this spot was flying quite an assortment, mainly of Lycaenids of which the most noteworthy were *Agrodiactes admetus* Esp. and its slightly smaller relative *A. ripartii* Freyer, usually distinguishable by the cream streak on the underside of the hindwings. We reached Kalavryta in the late afternoon and had a warm welcome at the hotel Maria, our haven again as it was three years earlier.

A very warm day dawned on 9th July when we decided to try some of the higher ground at 1,100m. beyond Megaspeleion. There was a small fairly open plateau where a galaxy of species was flying. By far the commonest was the Marbled White, *Melanargia larissa* Geyer. Next in abundance seemed to be *Chazara briseis* L. Among other Satyrids were an occasional *Hipparchia jagi* Scop., a single late male *Kirenia roxelana* Cramer, some uncatchable *Hipparchia statilinus* Hufn. settling on fir trunks, as well as a few *Pyronia cecilia* Vall., also *Brintesia circe* Fab., *Lasiommata megera* L. and what we took to be *Hipparchia aristaeus senthes* Fruhstorfer. Among the Nympha-

lines were *Polygonia c-album* L., *Argynnis paphia* L., *Fabriciana niobe* L., and *Limenitis reducta* Staud. The Skippers were represented mainly by a few *Ochlodes venatus faunus* Turati and *Syrichtus proto* Ochs. The only *Lampides baeticus* L. recorded for the trip was seen on this terrain. In all we saw quite 30 species of butterflies during the morning in this rich area. On 10th July we made our first assault on the Mt. Chelmos massif area which had proved so fruitful in 1971. We followed the same route on the rough mountain road with some ten hairpins, leaving our car at about 1,400m. on the level track among the Greek firs and then ascending to the famous Cherkobus plateau by the winding path which took about an hour's hard walk. The weather was ideal and on searching a small grassy clearing we saw the first *Colias aurorina heldreichi* Staud., flying round its prickly *Astragalus* foodplant. When we reached the main plateau it was soon apparent that this fine insect was in abundance and in better condition than we had anticipated at this late date. In fact we estimated seeing some four hundred individuals with many males past their best chasing newly emerged females of which we saw several of the white form f. *fountaineae*. Other Pierids noted included some strikingly marked female *Pieris ergane* Geyer with heavy black blotches on the forewings, also many *Aporia crataegi* L. just out at this altitude of nearly 5,000 ft. Blues were well to the fore with *Plebeius pylaon sephirus* Frivaldsky in great plenty in both sexes with the smaller *P. argus* L. flying in numbers. Of other blues we only saw single specimens of *Aricia anteros* Freyer and of *Plebicula dorylas* Schiff. Of the seven species of Hesperidae seen in the area the chief prize was a *Spialia phlomidis* H.-S., always a rarity together with a few *S. orbifer* Hübn. *Pyrgus armoricanus* Oberthür and *Carcharodus orientalis* Reverdin were distinctly scarce with an occasional *Erynnis tages* L. and *Carcharodus alceae* Esp. The *F. niobe* seemed a smaller race at this altitude and a contrast to the large *Argynnis aglaia* L. which was abundant. There were also some very worn *Parnassius mnemosyne* L. still fluttering and of course many *Colias croceus* Fourc. with several f. *helice*.

The weather was so perfect that we decided to make a further assault on the mountain the following day, the 11th. On this morning in wending our tortuous way along the rugged road we halted several times at large clumps of a tall thistle with large blue flowers which were well patronised by many butterflies, in particular a stretch of some 50 yards not far from where we left the car for the final ascent. By far the most numerous species were *Melanargia larissa* Geyer and *Pseudochazara anthelea amalthea* Frivaldsky with both sexes in fine order. These were accompanied by an occasional *Argynnis pandora* Schiff. and *Gonepteryx farinosa* Zeller. There was a host of *Agrodiaetus ripartii* flitting among the grass with a few *A. admetus* and a sprinkling of *Meleageria daphnis* Schiff. On our way up to the plateau we disturbed single specimens of *Nymphalis antiopa* L. and *N. polychloros* L. Species which we

had not seen before on the plateau included *Melitaea cinxia* L., *Brenthis daphne* Schiff., *Melitaea didyma* Esp., *Heodes phlaeas* L. and *Lysandra bellargus* Rott.

The next day, the 12th, we took the early morning train to the small station at Zachlorou, the scene of our successful collecting in 1971, but most species were getting over at this lower level. However, we were pleased to see our first *Gonepteryx cleopatra* L., while several *Limenitis reducta* Staud. were sailing along the gorge. Among quite a lot of hairstreaks were a few *Nordmannia acaciae* Esp. There were a great many *Argynnis paphia* L. on the wing in this attractive spot together with a few *Leptidea sinapis* L., *Syrichtus proto* Ochs., *Carcharodus alceae* Esp., and *Celastrina argiolus* L. Yet another day with a cloudless sky saw us make a third attempt on the Mt. Chelmos plateau on 13th July. One of the chief insects of interest was a single male of *Hyponephele lupinus* Costa flying among a good many *H. lycyon* Hübn. and *Satyrus ferula* Fab. *Colias aurorina* and *Plebeius pylaon* were as before in great plenty. On our return late that day to Kalavryta we had a call from John Coutsis to say that he had just been to Mt. Tymphristos on the edge of the Pindus range in Central Greece. It had proved so fruitful that he recommended us to turn our faces northwards which we decided to do. Our final day in this region was spent on 14th July motoring over the Aroania neck to the village of that name which was in sweltering heat. We happened to find a patch of the white ground elder so beloved by butterflies and in this instance it was smothered in Lycaenids, mostly Hairstreaks and nearly all *Strymonidia spini* Schiff., in not too good condition, also with a fair admixture of *N. ilicis* Esp. and *N. acaciae* Esp. and a couple of *Quercusia quercus* L., which is an elusive insect in Greece. Here we saw the first *Heodes tityrus* Poda and *H. alciphron* Rott. There was also a few *Carcharodus orientalis* in this rich spot.

We left Kalavryta early on 15th July and sped down to the coast where we had to wait a long time for the ferry at Aegion. We eventually embarked but did not reach the northern shore of the Gulf of Corinth till mid-afternoon, so we considered it inadvisable to push on further north and booked up at the excellent Galini Hotel at Itea. After a refreshing bathe we went up half way on the Delphi road to Hrissos, but saw nothing of note on the wing. Early on the 16th we set out to the north and our first halt was on the top of the Gravia Pass where *Lasiommata maera* L. and *L. megera* L. were flying. We then dropped down into the plain after going behind the famous Pass of Thermopylae and after passing through the large town of Lamia we turned directly westwards and travelled over the high pass on the Veluchi range with 22 hairpins on the eastern side. We had a brief halt among some fir trees where the best capture was a dark female of *Heodes alciphron* Rott. Lower down on the western side of the pass we saw the first *Melanargia galatea* L. in a very dark form as well as a very bright form of *Heodes virgaureae* L. We reached our destination, the fairly

large town of Karpenission in the late afternoon and put up at the local old Xenia which proved far from satisfactory. The morning of 17th July dawned extremely favourably when John Coutsis joined us from Athens at an early hour but before setting out for the heights of Mt. Tymphristos we moved to the Helvetia Hotel with much better amenities. Then we wended our way up some very steep bends on the mountain road till we reached a small plateau above the tree line at about 1,600m. with the massive peak of Mt. Tymphristos towering in front of us. Here our guide John Coutsis said was the richest region, though nearly always with a strong wind blowing as was on this occasion. On the lower fairly flat level we soon saw a good many *Colias aurorina* visiting the *Astragalus* and also what we dubbed the pincushion plant with its prickles and bright pink flowers. Here too we saw several f. *fountainiae*, the white females. As on Chelmos *P. pylaon* was quite numerous, but getting over. But as we ascended to the zone of shale, we came across the first *Erebia ottomana burexchi* Warren, the largest form of this very handsome species. They were fluttering over the steep slopes and difficult to waylay in the high wind. Further up there was another small plateau with a sheltered valley flanked by rocks which was a haven for many insects, especially *Boloria graeca* Staud. skimming swiftly low over the herbage at this near 1,800m. height. Among the rocks our companion took the first *Erebia melas* Herbst. We descended in the early afternoon and on the level near the road Russell Bretherton took a fine male of *Pseudochazara mamurra graeca* Staud. which was also one of our chief quarries. We then went a further mile up the road to some rocky slopes which did not yield much except in one spot near a small lake which was blue round its banks with a dancing mass of *Plebeius argus* L. On our descent in the late afternoon we halted at a rough path between some high rocks which harboured a spate of Lycaenids. Among them was a large form of *Aricia allouis* Geyer, also *Plebicula dorylas* Schiff., many *P. argus* and the Skippers *Spialia orbifer* and *Pyrgus serratulae* Rambur. We made a further stop at quite low level where among some broom were flying a few *Leptidea duponcheli* Staud. with *L. sinapis* L., while our final halt on this mountain road was almost on the outskirts of Karpenission where a spring of drinking water came out of the side of the hill. Its overflow was smothered in Blues and Hairstreaks, with several *Agrodiaetus admetus*, *A. ripartii*, *N. ucaciae*, *S. spini* and *Polyommatus thersites* Cant. We had also seen single specimens on the mountain of *Parnassius apollo* L., *Inachis io* L. (a purely mountain butterfly in Greece) and lower down a *Polygonia egea* Cramer. After our most successful and enterprising day John Coutsis once more took the road on his 200-mile journey back to Athens.

Another glorious day greeted us on 18th July when we ventured to some of the forest area on top of the first pass in the direction of Domnitza. We soon came across a glade by the side of the road where the brambles were smothered

with butterflies, mainly Nymphalines. There were a lot of *Brenthis daphne* Schiff. in good order, also *A. paphia* and a few *Meliccia aethalia* Rott. Further up the road was a large cluster of the ground elder which also attracted a host of insects including *Heodes virgaureae* and *H. alciphron*, a few *Plebicula amanda* Scheven and quite a number of *Coenonympha arcania* L. in a large and bright form. Yet further along the road we came across more stretches of the white elder flower which harboured quite a galaxy of insects as before with many *A. paphia* and also *Fabriciana adippe olympena* Verity with very clear undersides lacking any pearly spotting. There were too a good many *P. anthelea amalthea* and *M. galatea*.

On 19th July we made a second trip up the mountain road to our locality of the previous occasion again in excellent weather which tempted us up to the heights as before where we again saw a fair number of *E. ottomana*, but only a couple of *E. melas* and many fewer *Boloria graeca* both at this spot and a mile further up the road in a grassy plateau. On the way down we came across a very late *Papilio alexanor* Esp. and Russell Bretherton took a single *Maculinea arion* L., a late female. His first capture at low level on our final day the 20th, again up to Mt. Tymphristos, was a fresh *Cupido osiris* Meigen, also further *L. duponcheli*. This time we concentrated on the low plateau near the mountain road where there was a rocky face. Here *Satyrus jerula* was flying in plenty settling on the pincushion plant which again attracted many *Colias aurorina*. But we were soon able to realise that *P. mamurra* had emerged in fair numbers and by adroit stalking among the rocks quite a number were waylaid together with a few seen on the short grass and occasionally on the pincushions flowers. They were extremely hard to follow in this terrain owing to their very cryptic coloration. On our way down we made a final halt by the fountain where we saw some worn *Cyaniris semiargus* Rott. and our final capture was a fresh male *Lysandra coridon* Poda.

That evening we heard the ominous news that general mobilisation had been proclaimed throughout Greece following the Cyprus invasion. We set out from Karpenission early on 21st July on the 200-mile run to Athens in the hope of flying out that night as planned. We found the capital that Sunday a dead city and on reaching the air terminal were told the airport was closed and there was no means of leaving the country. Fortunately the hotel, Alpha was able to accommodate us again. The next day John Coutsis showed us his new flat and his rearranged collection of Greek butterflies, a wonderful ensemble. On the 23rd after much despondency and rumours of war we heard at mid-day, after inquiry from British Airways, that a specially chartered liner was due to sail from Piraeus for Italy. We were lucky to be able to book a cabin and embarked during the afternoon, only to set out at 10 p.m. with 600 others on board. We sailed through the Gulf of Corinth, reached Brindisi in the early hours of the 25th, and were flown at once to London at no additional expense. So ended a most

successful further trip to Greece with such an adventurous and unexpected conclusion.

In all we recorded 104 species of butterflies between 8th and 21st July noted mainly in the region of Mount Chelmos in the Peloponnese and in the vicinity of Karpenission in the Veluchi range of Central Greece.

PART II: Notes on selected species by R. F. BRETHERTON

Colias aurorina heldreichi Stgr., *Plebejus pylaon* Fischer, *P. argus* L. and, to a lesser extent *C. croceus* Fourc., were the dominant species on the Cherkobus plateau and in openings in the forest just below it (c. 1,500/1,700m.) during our visits on 10th, 11th and 13th July, all other species of Rhopalocera being relatively scarce. This dominance is probably due to their choice of the pink, spiny vetch (probably *Astragalus cylleneus* Lam.) as their foodplant, on which all four species were seen to oviposit; this is resistant to the heavy grazing which has denuded the plateau of much of its other vegetation. Males of *C. aurorina* were mostly worn, though good ones could still be picked; females were still emerging and many courtship flights were seen. We saw over a dozen of the traditionally very rare white female form, *fountainae* Aigner: this looks on the wing like a large version of the Alpine *C. phicomene* Esp., but flies much more vigorously. Among the orange females there was considerable variation in the amount of blackish suffusion at the base of the forewings and over the hindwings, and in one specimen captured the pale marginal spots on the latter are joined to form a continuous band. The abundance of the species at this late date was surprising: on previous visits to the plateau on 24th and 26th June, 1968, it was distinctly scarce, most even of the females were worn, and no *fountainae* were seen, while on 25th May, 1971 it was not seen at all, presumably because the emergence had not begun. We also found the species on Mt. Tymphristos, 60 miles to the north across the Gulf of Corinth, still in much the same condition though in smaller numbers at the same altitude ten days later. The race on Mt. Tymphristos seems to be more heavily suffused with black scales than that on Mt. Chelmos. These mountains are the northern and southern limits of its distribution in Europe as at present recorded.

P. pylaon seems to have a rather wider distribution in the Peloponnese and a greater altitude range; but I know of no reports of it north of Mt. Tymphristos, and certainly it is separated by a wide gap from s.sp. *sephirus* Friv. in Yugoslav Macedonia and Bulgaria. The Greek form is in general larger and brighter in both sexes, and is closer to the alpine s.sp. *trappi* Verity; it probably deserves sub-specific status, using like the other European sub-species a separate *Astragalus* as its foodplant. There is, however, much individual variation in our specimens both from Chelmos and Tymphristos. Size ranges from 32mm. to 40mm. in both sexes. Most males have a distinct row of black marginal spots on the hindwings upperside; but

in some these are vestigial or absent. Females usually have three or four marginal orange spots on the hindwings; but at the extremes these may be almost invisible, or they may form a continuous band on both fore and hindwings. On the underside the black spots vary in size and number, and in one fine aberration most of them are confluent; and in the females the ground colour may range from pale grey, as in the males, to light brown. But I cannot detect any constant differences between specimens taken on the two mountains or previously on Mt. Parnassos.

Agrodiactes ripartii Fr. and *A. admetus* Esp. We found these species in many places from about 500m. on the road from the coast to Kalavrita to 1,100m. below the Cherkobus plateau, and also above Karpenission frequenting dry banks or water courses, especially near trees or bushes. Usually both were present together, but *A. admetus* was much the scarcer; that has also been my earlier experience. It is, however, not easy to separate them on the wing or in the net. The best character, in Greece at least, is the presence in *A. admetus* of rows of pale, orange centred, spots on the margins of both fore and hind wings underside; in *A. ripartii* these are absent or, at most, vestigial. *A. admetus* also has slightly fuller, more rounded, forewings and a browner, less grey, ground colour underside with stronger and more numerous ocellations on the hindwings, including two basal spots against only one in *A. ripartii*. Other often cited distinctions are unreliable in Greece. Mr. John Coutsis has pointed out (1972, *Ent. Rec.* 84, plate VIII) that the white streak on the underside hindwings, which is always present in *A. ripartii* in the French Alps, is often absent or very faint in Greek specimens: this is the case in 11 out of 27 specimens of both sexes in my own collection, from several different localities. On the other hand, *A. admetus*, which in Greece usually lacks the streak, occasionally has at least a short one. Again, the presence or absence of orange spots on the upperside of the females is not a reliable test; they may be either present or absent in Greek specimens of both species, although in alpine *A. ripartii* they are always absent. But it must be accepted that specific relationships in *Agrodiactes* are extremely difficult to determine; chromosome counts, which so far as I know have not yet been made for these species in Greece, might yield surprising results.

Heodes alciphron Rott. we found in small numbers and rather worn on the flowers of Danewort (*Sambucus ebulus* L.) at Aroania in the Peloponnese and again at about 1,200m. in the forest above Karpenission. The males are very heavily suffused with purple sheen and the females almost black; they are probably referable to s.sp. *chairemon* Frhst., which I found in 1972 250 miles further north in the mountains of Montenegro, and which is also widespread in Albania (Rebel & Zerny, 1931). But, as Mr. Coutsis has pointed out to me, these are very different from the bright, lightly marked form which occurs