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*W. H. S.*  
1944

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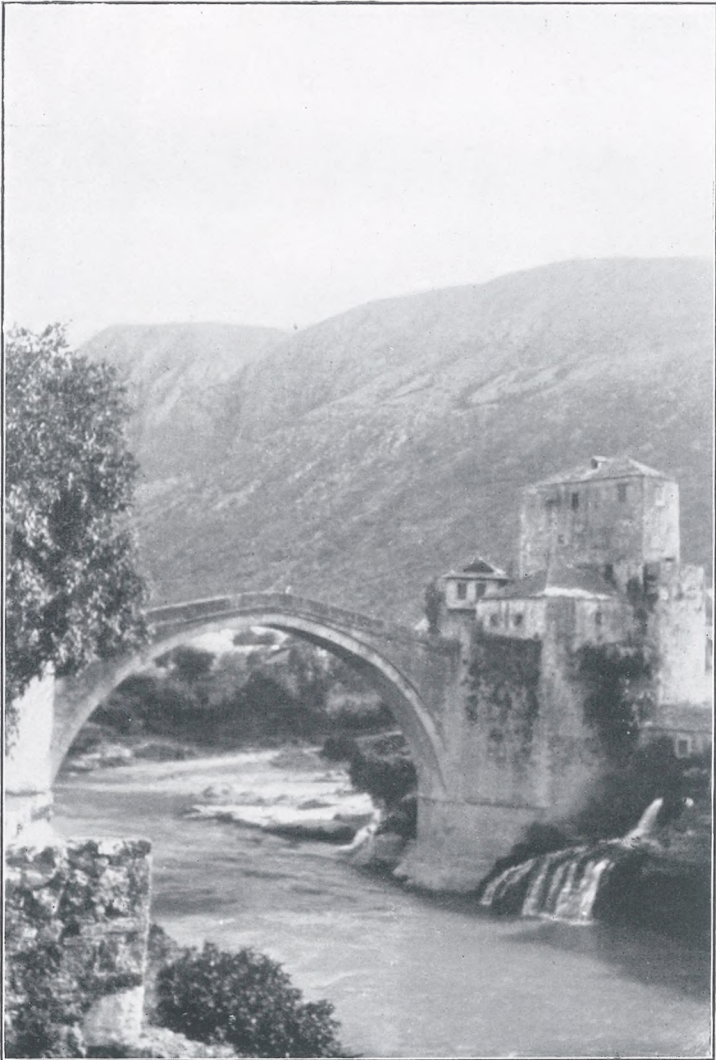
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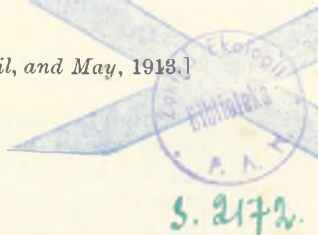
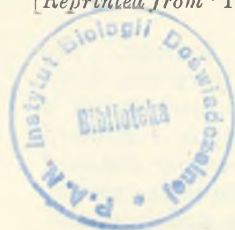


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THE BRIDGE AT MOSTAR.





## BUTTERFLY-HUNTING IN THE BALKANS.

By A. E. GIBBS, F.L.S.

I SPENT a few weeks in the summer of 1912 in the Western Balkans, visiting Dalmatia, Montenegro, Herzegovina, and Bosnia. Although the season there, as elsewhere, was a disappointing one, and I did not see several species whose acquaintance I hoped to make, and which are known to occur in these countries, yet I obtained a fair number of interesting butterflies, and an account of the journey may be worth writing. Having crossed Europe to Trieste I went by boat down the Dalmatian coast to Cattaro, from which port I travelled over the Black Mountain into Montenegro, subsequently returning to the sea and proceeding to Gravosa, whence I was able to get on by railway to Herzegovina and Bosnia. I shall relate my experiences in the different countries visited, devoting a short chapter to each.

### DALMATIA.

It is a far cry from my Hertfordshire home at St. Albans to Spalato, the charmingly situated Dalmatian seaport, some two hundred miles down the eastern coast of the Adriatic, but there is a connecting link between the two places which makes Spalato a particularly interesting spot to me. It was under the Diocletian persecution that the martyrdom of St. Alban took place. The great emperor was a native of what is now Dalmatia, and when, growing old, the cares of government became too heavy for him, he did what a good many Roman emperors were unable to accomplish—he laid them down without also laying down his life, and, retiring to his native land, built himself a splendid palace. When the Avars overran the country and destroyed the Roman town of Salona, the inhabitants took refuge inside the strong walls of Diocletian's great house, actually building their new city in its spacious enclosures. So, on June 2nd, as I strolled up the slopes of Monte Marjan, I thought of all that the decree of the mighty Dalmatian emperor of Rome had meant for British Christianity, and remembered that the very existence of my native city might be directly attributed to it. But I was awakened from dreams of the past by a small white butterfly which fluttered across the path. A turn of the net and my first specimen of *Pieris ergane* was secured, the pioneer of a

considerable series captured during the Balkan journey. The insect which before all others I was especially on the lookout for was *Melanargia larissa* var. *herta*, Hb., and seeing a grassy place which appeared to be a likely spot, I climbed the wall of the enclosure and succeeded in beating out and securing a specimen of this local Satyrid. *Herta* is the variety of *larissa* which occurs in the Western Balkans, and is distinguished from the nymtypical form in having the disc of the wings white. Returning to the path I took two specimens of *Thecla spini*, which is a rather abundant insect in this part of the world. On the flower-heads the commonest of our Palæarctic Syntomidæ, *Syntomis phegea*, was disporting itself, while *Cœnonympha pamphilus*, which could not be distinguished from the British form, flew by the wayside. When I reached the top of the hill I found an old and familiar friend, *Vanessa cardui*, careering boldly about as is its wont, but while I sat on a wall watching its gambols with one eye, and with the other the crowd of young Dalmatians swinging and playing in the grounds of the restaurant, the gathering clouds warned me to be moving, and before I could get back to the town rain began to fall. The next morning, however, was fine and bright, and there appeared to be every prospect of a good butterfly day, so I resolved to take the ten o'clock train to a place called Clissa, about an hour's ride inland. I booked second class, and my travelling companions were a young couple with a baby. The mother insisted, despite the heat, on having the windows closed for fear baby should catch cold, while the father spent his time in entomological pursuits, chasing and killing the numerous flies which showed a strong desire to settle on the sleeping infant! I made up my mind to escape at the first opportunity, so at a wayside halt I changed into an airy third class carriage with an open platform in front, from which I saw var. *herta* flying abundantly among the grass and herbage on the hillside. I think my journey would have yielded better entomological results if I had left the train at one of these little stations. At Clissa there is a picturesque castle-crowned hill, where a few soldiers are stationed, and as I entered the gateway to explore the old fortifications, I noticed *Papilio podalirius* flying round the young trees; but they were ancient specimens and in very worn condition, so I let most of those I captured go. A soldier had been watching me, and when I put down the net to take a snapshot from the ramparts, he took possession of it and frantically, but not very successfully, chased every *Papilio* that appeared, bringing to me in triumph the poor, battered, tailless creatures which he succeeded in catching. When I got the net back I started off down the hill to try to reach the source of the river Jeder, which issues, as so many of the Balkan rivers do, in a great stream from the base of a limestone cliff. It was a hot

walk of two or three miles, with nothing to be had until I came to a hillside where I got eight or nine *M. var. herta*, a nice series of *Polyommatus escheri* in prime condition, and one *P. orion* decidedly the worse for wear. I have said that nothing was to be had *en route*, but I had forgotten a stern chase after a very vigorous specimen of *Polygonia egea*, which I ultimately caught on a bramble bush; but I caught the bramble too, and, before I could disentangle the net, *egea* succeeded in getting away. But I made up for the disappointment as I netted several specimens later in the day, and during my visit to the Balkans I got a good many of them. After a picnic lunch in a green and shady corner of the valley by the source of the river, with a flowery spot near by, where I took *Pontia daplidice* and several of the common Lycænids, I walked back to Spalato, where I posted my captures—fifty-six in number—home to be set.

The next day I went on by sea to Ragusa, an ancient and most interesting town. In the afternoon of my arrival I took passage on a small steamer which was advertised to run to the island of Lacroma, where *Charaxes jasius* is said to fly, and thence to the source of the river Ombla. It was too rough to land on the island, so we steamed round it, and running for a few miles up the coast, the little boat tumbling about a good deal in a very choppy sea, we entered the estuary of the river, where we found smoother water. We steamed up it as far as the boat could be taken, landing in front of a little inn, five minutes' walk from a mighty cliff, where the Ombla issues from the bowels of the earth a full-grown river. During the half-hour or so we spent here I took a few *P. ergane* and other insects. It seemed a good spot for collecting, so I resolved to revisit it the next day, when I decided that I would try to reach it by climbing over the mountain behind Ragusa, instead of by following the coast line. It was a very rough scramble to the top of the hill, for I failed to find the path, the nature of the ground making butterfly-hunting quite impossible, but when once the summit was gained I was rewarded by a beautiful view of the coast. In a little hollow *Agriades thetis* was flying in considerable numbers and good condition. Having crossed the plateau I struck the railway from Gravosa, which had climbed high up on the side of a valley. A path zigzagged from the little station down to the village. By the side of it I got *Melitæa cinxia* and *M. trivialis* in single specimens, *M. didyma*, *Thecla spini*, and *T. ilicis*.

One of the most interesting captures of the day was a Hesperid, which at the time I thought was *Pamphila nostradamus*, but which I now believe to be *P. lefebvrei*. Two males, both rather worn, were taken. In vol. iv. of 'Lépidopterologie Comparée,' M. Oberthür sets out at length the distinguishing features of these two species, and on Plate lxiv. in vol. v. there are



excellent figures of upper and under sides of both sexes, drawn from specimens taken by Signor Querci at Formia, in the Italian province of Caserta. I have a good series of *P. lefebvrii* from the same place, and comparing these two specimens both with M. Oberthür's figures and with my Italian insects I think that the Dalmatian specimens must be assigned to Rambur's *lefebvrii*, notwithstanding the fact that M. Oberthür gives Dalmatia as a locality for *P. nostradamus*. At the little inn by the landing-stage I made an unsatisfactory lunch of raw ham and hard-boiled eggs, with coarse bread hot from the oven, washed down by a bottle of Giesshubler water and the wine of the country. Then I sought the hillside where on the previous day I had found *P. ergane*. The mountain was steep and the sun overpowering, so I had to remain under the shadow of a small tree and capture the few specimens which came my way. On the other side of the river the ground was a little less precipitous and there was more shade, so I made my way thither and took several *P. egea*, a poor *L. camilla*, and things of lesser note, but was also fortunate enough to secure another specimen of *M. var. herta*. But the Ombla valley was like an oven, and I was glad to find a man with a conveyance, and I engaged him to drive me to Gravosa, whence the tramway took me back to the comfortable Hôtel Impérial at Ragusa. This brought to an end my brief entomological experiences in Dalmatia, for the plans I made to return later on for more *M. var. herta* were not carried out.

#### MONTENEGRO.

Cettijne, the tiny capital of the land of the Black Mountain, is situated at the end of one of the comparatively fertile little plains which the traveller finds here and there in the desolate limestone mountains which are such a characteristic feature in the scenery of this part of the Balkan peninsula. This bare and treeless region, almost devoid of vegetation, is known as the Karst, and the sight of it does not inspire the butterfly-hunter with anticipations of a very profitable expedition; but for all that I found it most interesting ground. There is practically only one hotel in Cettijne, "The Grand," a not very ambitious or palatial place, but it is clean and comfortable, and the charges are quite moderate. I spent a few very happy days there, and my experiences, both of the country and the people, were of the pleasantest. It was a long day's ride from Ragusa to Cettijne, first by steamer to the Dalmatian town of Cattaro, on the beautiful land-locked Bocche of the same name, and thence by automobile up the wonderful road which climbs the far-famed Black Mountain and connects Cettijne with the outer world. When I awoke on the morning after my arrival the country was bathed in sunshine, and I lost no time in setting out to explore



the neighbourhood. Behind the hotel is a park where the band plays on Sundays, and beyond it rises a mountain slope clothed with wild sage and other plants, quite a flowery bank for Montenegro. I made my way to this, hoping to find *Thais polyxena*, which I knew occurred somewhere hereabouts, and in a short time I secured four specimens, not in very first rate condition, for June 7th is a late date for this species. My time on the hillside, however, was limited, for I had to return to the town to keep an eleven o'clock appointment with the British Minister, the Count de Salis. To that gentleman I am indebted for many little kindnesses and much information which helped to make my stay in Montenegro pleasant. *Pieris ergane* was in evidence on the hillside, and I got a rather interesting series, including the aberrations of the female, upon which Rostagno has bestowed the names *magnimaculata*, in which the spots are much enlarged, and *longomaculata*, in which they are elongated and united to form a cloudy band. But the commonest Pierid appeared to be *P. brassicæ*, which was to be seen everywhere. After lunch I climbed the hills in another direction, but was not so fortunate as in the early morning, for I struck upon a district where the slopes were covered for the most part with loose stones, with hardly any flowers to enliven their desolate appearance, and only some low scrub around which nothing was flying. The next morning was dull, but I decided to try my luck on the road to Rjeka and to visit the Belvedere, from which place I was told a fine view was to be obtained. Some rain fell soon after I started, and I had to take shelter under the bushes, but I found *Pararge mæra* flying between the showers. Persevering, I reached the Belvedere, and was well rewarded for my walk. A rough pavilion is erected on a commanding rock, and from it a most wonderful panorama of mountain, valley, lake and stream is to be seen. Fifteen hundred feet below lies a deep valley stretching right away towards the distant lake of Skutari, the shores of which are partly Turkish and partly Montenegrin, while on the horizon the gloomy mountains of Albania rise, peak after peak, in endless succession. They are known as "the Mountains of the Damned," and their terrible slopes are said to have never been climbed by a stranger. What entomological treasures they contain no one knows, but perhaps recent happenings may hasten the day when it will be safe for the butterfly-hunter to venture into that lawless country, now inhabited by fierce and half civilized people, with some of whom I came in contact a few days later in the cattle-market at Podgorica. The weather had brightened a little, and occasional rays of sunshine enlivened the scene, lighting up the waters of the distant lake. At my feet was the excellent road made by King Nicholas, winding down the steep slopes of the rock-strewn valley, which had repeatedly proved a death-trap to the hoardes of Turks, who for so many

centuries vainly tried to subdue the Montenegrins. While taking a photograph of this glorious scene, perhaps the finest view I have ever looked upon, *Limenitis camilla*, fresh as paint, settled on the rock beside me, and before I could put down the camera and take up the net it had sailed away over the trees to my right. This little woodland fairy proved a good guide, for on trying to follow it I struck a narrow path which led me into a tiny meadow, probably little more than an acre in extent, which proved to be one of the best butterfly corners I discovered in Montenegro. I remained there catching lepidoptera until it was time to hurry back to Cettijne for lunch. Often a sweep of the net yielded four or five different species. Here I made my first acquaintance with *Hesperia sidæ*, one of the most striking insects of its group. *H. orbifer*, too, was there, with *Spilothyrus lavateræ*, and beautifully bright specimens of *H. sylvanus*, which glistened in the sunshine like "coppers." There was also a black and white skipper which I hesitate to name. Of "blues" there were *Nomiades cyllarus*, *Cupido minima*, a fine large and bright form of *Plebeius argus*, L., *Polyommatus icarus*, *Cyaniris semiargus*, and *Lycæna orion*. *Thais polyxena*, a poor, battered object, was fluttering over the grass, and among the bushes *Cænonympha arcania* was found. On the previous day I had taken an interesting form of *C. tiphon* which puzzled me, and now I caught seven more specimens. It turned out to be the variety *rhodopensis* of Elwes, and resembles somewhat our northern form, the *scotica* of Staudinger, but is of a much lighter and brighter tint than the Scotch insect. There are no ocelli on the upper side, but in some of my specimens the apical spots of the under side show through. Dr. Seitz states that the hind wing of this form on the under side mostly exhibits a complete row of ocelli; but my Montenegrin specimens, and also a few I took at Jablanica, in the Herzegovina, are very variable in this respect. Some of my females have the full complement of six ocelli, which are almost as conspicuous as in the typical *tiphon* of Von Rottenburg, which I take to correspond to the British middle form, as described by Buckle in his well-known article on this species.\* In the majority of my specimens, however, the ocelli are but feebly developed, and I secured at Cettijne one male of the form which Rebel has described from Bosnia and Herzegovina under the name of *occupata*, in which the spots are entirely obsolescent. There is considerable sexual variation in colour, the males being darker than the females, the veins and costal and outer margins conspicuously so, and in one specimen the hind wings are so much darkened that at the first glance I took it to be *C. iphis*. The under side, too, is much brighter than typical *tiphon*; the fore wings, except for their ashy-grey apices and margins, being generally unicolorous. Mr. Elwes in his description of the

\* The 'Entomologist's Record,' vii, p. 100.

variety, published in the Entomological Society's 'Transactions,' 1900, p. 205, says that it differs from the normal European form in having, in most cases, the apical band of the fore wing below obsolete, but that about one-third of his specimens show a trace of the band. My specimens agree with those of Mr. Elwes, for I have three or four examples, mostly females, in which a rudimentary band can be seen, and in these specimens the apical eye-spot is also well developed. The ground colour of the hind wings, especially of the females, is of the same *pamphilus*-yellow which prevails throughout. Altogether, *C. var. rhodopensis* is a most attractive form of this variable species.

After lunch I determined to re-visit the flowery hillside behind the hotel, following up a narrow path which I afterwards found was the old road to Rjeka. Here I again met with the local form of *tiphon*. A pupa of *Aporia crataegi* was discovered, from which in a few days the butterfly emerged. Two very common insects were *Venilia maculata* and *Vanessa cardui*, and I found a colony of Zygaenid larvæ on wild sage, which I was unable to rear. The path wound about among the mountains, and great was my surprise, on crossing a ridge, to find myself above the high road close to the Belvedere, which I had visited earlier in the day. So I determined to pay another visit to the little meadow, but a curious incident interfered with my plans. As I descended to the road I heard what I thought to be a number of boys coming from the direction of Cettijne, and singing songs as they walked along; but hardly had I reached the pavilion when I discovered that the noise proceeded from a regiment of khaki-clad soldiers, marching along the road without any sort of order. As I watched them they formed up, and standing at the entrance to the path leading to the meadow an officer addressed them at great length, apparently on the subject of taking cover. So well was the lesson learned that a few seconds after the order to disperse had been given not a soldier was to be seen except the officers who had remained upon the road. But interesting though this little incident was it quite spoiled my afternoon's work, for access to the meadow had been cut off, and I was not able to enter it until the sun had sunk behind the mountains, and nothing worth speaking of was to be found. Other excursions in the neighbourhood of Cettijne yielded *Papilio podalirius*, *Brenthis euphrosyne*, both apparently nearly over, *Epinephele janira* (males only), *Hesperia tages*, *Euchloë cardamines*, *Colias edusa*, *Leptosia sinapis*, and *Melitæa cinxia*.

From Cettijne I wanted to go to Skutari, a Turkish town which has lately become famous in connection with the unfortunate war which broke out a few months after I returned home from the Balkans. But Turks and Montenegrins had already begun to quarrel, and the steamer which usually plies



upon the lake, between Rjeka and Skutari, had stopped running. So I changed my plans. Learning that at Rjeka, one of the most beautifully situated places I visited, there was no hotel fit to stop at, I decided to go on to Podgorica, upon which in a few weeks the eyes of the civilized world were to be fixed, for it is the border town where the Montenegrin army was mobilized, and near to which the first battles of the war were fought. It was a most interesting spot, and much might be written about it, but I must only relate my entomological experiences. My first walk was in the direction of the Turkish frontier, and here, on a hill-top, both the common European forms of *Papilio* were flying. But the wind was very strong, and although I spent a considerable time trying to catch an elusive specimen of *P. machaon*, which appeared to me to be of a very dark orange colour, I was unsuccessful, the examples of both species which fell to my net being in no way remarkable. On the slope of the hill *M. didyma* was flitting from flower to flower, and in a Turkish graveyard at its foot *Anthocaris*, var. *ausonia*, was present in abundance. The only other noteworthy insect was *Satyrus semele*, of which I found a fine, well-marked form on the hills round Podgorica. I think the specimens were the largest I have seen, being 60 mm. in expanse. The next morning I climbed the mountain on the opposite side of the town, where I found all the species of the previous day, as well as *Pieris rapæ*, *P. ergane*, *Epinephele janira*, *Pararge megæra*, *Rumicia phlæas*, *Thecla spini*, and a very pretty and abundant Pyralid which was present in thousands in the grass everywhere.

Another day at Cettijne permitted me to visit again the Belvedere, where I added *Polyommatus astrarche* and *Pararge gegeria* to the list.

#### HERZEGOVINA.

On Friday, June 14th, I arrived at Mostar. I left Gravosa in the early morning in bright sunshine, and from the railway, high up above the shores of the Ombla, I caught sight of my old hunting-ground at the source of that river. Some fine views of the Adriatic on the one hand, and of the cypress-covered hills on the other, were obtained; but soon we turned inland, traversing a more desolate region of bare rock and scanty cultivation. For more than an hour we travelled by the side of the bed of a lake, which is only a lake for about five months of the year. It was for the most part dry and laid out in small patches for cultivation, water still covering the lower levels. When I passed it again a month or so later the crops were fast approaching maturity, and the cows were being pastured in places which now appeared to be only mud. It was curious to notice the boats lying on the hillside in spots which in winter would presumably be the water's edge, but now far above the level



of the little river which trickled along amid fast-drying pools in the bottom of the valley. This curious lake bears the unpronounceable name of Popovopolje, and in summer its waters are said to find a subterranean outlet. The water system of the Balkans presents many curious phenomena of this kind, full-grown rivers issuing from cliffs, and streams disappearing in fissures of the earth in a remarkable way. The bright morning was succeeded by cloud and rain, and it was wet when I left the shelter of the hotel Narenta, at Mostar, to explore the sights of this oriental city, and to admire its incomparable bridge, perhaps the most interesting structure in the Balkans. Much valuable time was wasted in an endeavour to get a permit to take photographs, which was absolutely refused me by the commander of the garrison, but I got my way by telegraphing direct to the headquarters of the military district at Ragusa. So that afternoon slipped away, and I was not able to do any entomological work until the next morning. Its early hours were cloudy, but while I was having my coffee the sun came out, and a *Pieris brassicæ* was seen flying in the little public park in front of the hotel. This decided me to try my luck on the north-west of the town, along the railway line. At first nothing but a few *Anthocaris*, var. *ausonia*, were to be had, but as I got further away from Mostar matters improved. The hillsides are highly tilled wherever cultivation is possible, the vine being grown on the lower slopes. I followed a narrow lane leading upwards between the vineyards, and on a thistle-head a beautiful female *Dryas pandora* was sunning herself. She fell a victim, and, hoping for others, I lingered near the attractive flowers; but although no more *pandora* were secured at this spot, I caught two *Argynnis adippe*, var. *cleodoxa*, which seems to be the prevailing form of this species in the Balkans. *Libythea celtis*, just out of the chrysalis, was sporting along the thorny hedgerows, where it was well protected and difficult to get without tearing the net. A nice specimen which I succeeded in capturing was unfortunately smashed between the cork and the bottle, and although I saw a fair number of others I only carried one *celtis* home. A green hair-streak was observed, and hoping for *Thecla avis*, I caught it; but, like all other specimens I captured in this part of the world, it proved to be only the common species. A male *Argynnis phæbe* next came along, and in a meadow two *Melitæa didyma* were added to the bag. On the hillside *Pieris ergane* was abundant, and *Polygonia egea* flew round the bramble blossoms. Three more *D. pandora* were accounted for on the way home, as well as a very respectable specimen of *Hesperia sida*. The Lycænids taken during the morning were *Agriades thetis*, *Polyommatus astrarche*, *P. escheri*, *Thecla spini*, and *Rumicia phlæas*.

Mostar is compressed into a few long streets on either bank

of the river Narenta by the precipitous fortress-crowned hills which dominate the valley. Their slopes are very difficult to negotiate, being covered with large loose stones, but I noticed patches of garden ground, and, here and there, higher up, some grassy places, so I thought it might be worth while to see what insect life was to be found there. I therefore scrambled up the slope above the new Servian church, and as the morning was a very hot one I soon regretted my decision. *Thecla spini* and *Pieris ergane*, both in abundance, were the two insects which divided possession of these rough places, with a few stray specimens of *P. egea*, *Satyrus semele*, and *A. var. ausonia* to keep them company. It was here among the fruit trees in a garden, in a little gully, that I saw the only example of *Charaxes jasius* I met with this year; but the nature of the ground forbade pursuit, and I was forced to be content with a passing glance.

The Narenta is one of the most remarkable streams in Europe. I know of no finer scenery anywhere than is to be found in the gorges of some of the Balkan rivers. We have to thank the Austrians for opening up this land of wonders to the traveller, and for giving, not only security of life and property in a country which, less than forty years ago, was only visited of dire necessity and with a strong escort, but also for constructing railway lines and carriage roads through defiles like that of the Narenta, making their scenery easy of access. The journey from Mostar to Jablanica, by the side of the Narenta's foaming waters, was most enjoyable. At the latter place where a mountain stream, the Rama, joins the larger river, the Government has built a little hotel, and is trying to make it popular as a summer resort. It is unpretentious but quite satisfactory, meals being served under the shady trees in a pretty garden. On June 18th I walked up the valley with my net, and found the railway banks provided a good hunting ground. On a clump of dwarf elder growing by the roadside I took a nice series of *Argynnis daphne* and *Chrysophanus alciphron* (type) in beautiful condition, and also a fresh female specimen of *A. hecate*, my proceedings being watched with evident amusement by a picturesque group of platelayers in oriental costume, who were repairing the line. *T. ilicis* and its var. *cerri* were also to be found on the flower-heads, and *A. var. cleodoxa* was among the desirable things captured. Other insects seen during the morning were *A. daphne*, *P. c-album*, *P. rapæ*, *E. janira*, *L. sinapis*, *E. phleas*, *P. podalirius*, *D. paphia*, and *Eugonia polychloros*.

In the afternoon I went on to Sarajevo, where I had arranged to meet Mr. P. J. Barraud, but I resolved to return later on and explore some of the higher ground, Jablanica being an excellent centre for the purpose. It was not, however, until July 9th that I was able to carry my resolution into effect. On that day, in

company with a guide, I left the hotel and climbed to a high point called the Plaça, spending the day on the mountains. As we passed the castle-like barracks on the hill *podalirius* was flying, and as the guide anxiously urged me to catch it I did so, but the loss of a tail saved its life. The way led for the most part under the shade of trees, and consequently very little insect life was to be seen, but on a flowery slope two female *Polyommatus meleager* proved welcome captures, and on my return a male in good condition was awaiting me on the same spot. A species which I anticipated getting during my Balkan journey was *Neptis lucilla*, but I saw no sign of it until to-day, when half a dozen specimens, all in rather poor condition, were taken. The species was practically over, and I was very unlucky in missing it while it was in its first beauty. At the highest point of the long day's climb *Parnassius mnemosyne*, also quite worn out, was flying. Other insects taken were *Satyrus hermione*, *Pieris manni*, *Melanargia galatea*, var. *procida*, *Chrysophanus hippothoë*, *Spilothyrus lavateræ*, and a *Melitæa*, which I hoped would prove to be *M. dictynnoides*, but which the Rev. G. Wheeler, who has very kindly looked through my Balkan *Melitæas*, believes to be *M. athalia*.

The morning of July 10th was devoted to the exploration of a valley on the south-east side of the Narenta, below Jablanica. In the meadows near the bridge which carries the railway over the river *C. edusa* was flying. The hillsides hereabouts were as bare and lacking in shelter as the previous day's climb had been shady, there being very few trees or bushes. My notes show that the most abundant butterfly was *L. sinapis*, but the insects which were the most successful in making their presence known were undoubtedly the cicadas which abound in these valleys, and whose stridulations are sometimes almost deafening. I climbed to a ridge where a few young trees were growing, and here I found *S. hermione* in considerable numbers, sitting on the tree trunks, and, when disturbed, flying to a similar resting place a few yards away. *P. machaon* was racing up and down the mountain slope, but it was too hot to chase it, even if I had wanted to. *Zygæna carniolica* was common, resting upon the wild sage, and in looking at them I disturbed a butterfly which proved to be a male *Epinephele lycæon*. The species was evidently just emerging, and I only succeeded in finding two other specimens, all of the same sex. In the afternoon I again visited the railway banks to the north of Jablanica, where I had found *C. alciphron* and *A. daphne* so plentiful in June, but everything was now very different. Although the clumps of dwarf elder were still in flower, both butterflies were wanting or only represented by one or two dilapidated specimens. Vegetation in the valley had been burned up by the scorching rays of the midsummer sun, and as there were no lepidoptera to be found I



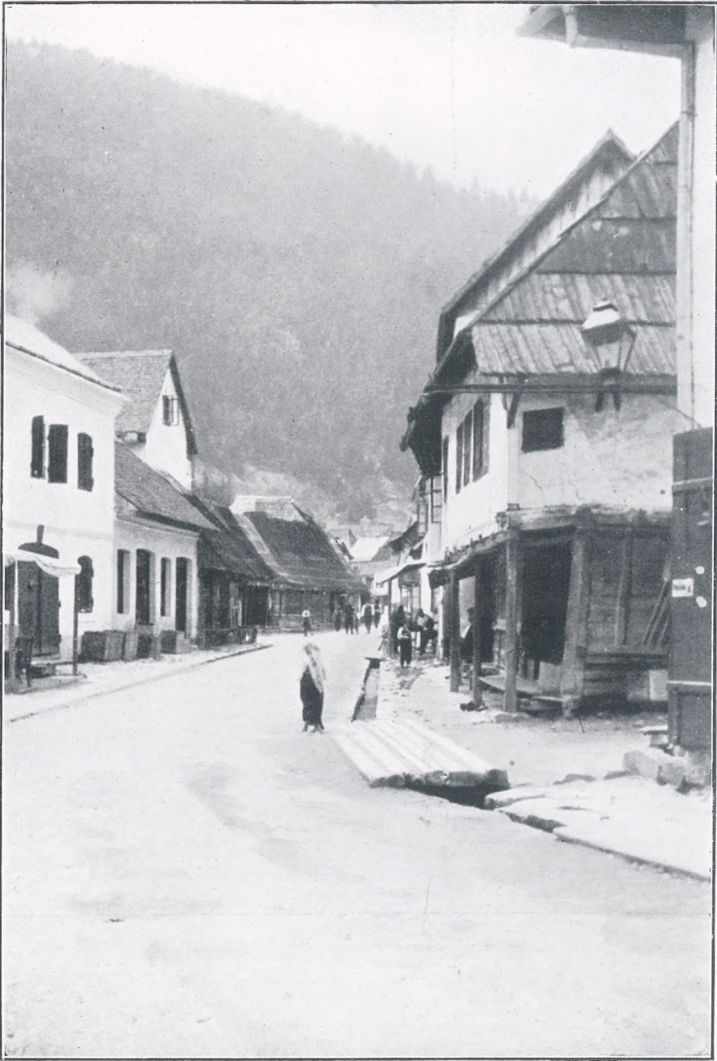
amused myself watching the cicadas on the tree trunks, and securing a few specimens as mementos of the occasion. On the following day I returned to Gravosa *en route* for England.

#### BOSNIA.

On the morning of June 19th I met by appointment at Sarajevo, Mr. P. J. Barraud, of Bushey Heath, who had come through from Vienna in the night, and the greater part of the time devoted to collecting in Bosnia was spent in his company. By the kindness of a friend, whose acquaintance I had made in Montenegro, we were able to explore, in his motor-car, the interesting and little visited country which lies on the borders of Servia, Montenegro, and Turkey. This is not the place to dwell upon the enjoyments of motoring in the Balkans, or to relate the adventures which befel us. Our headquarters, after leaving the capital, was Gorazda, on the Drina, a convenient centre with a fairly decent inn. The ride from Sarajevo to Gorazda, over a mountain pass 4000 ft. above sea-level, was an experience never to be forgotten. At Gorazda I became friendly with an Austrian gentleman, whose business took him to many of the towns and villages in the neighbourhood, and he kindly invited me to go with him on one of his journeys, offering me a seat in his carriage. So, while the car made a successful attempt to get across the Turkish frontier, I drove with Herr Folje to a place called Cajnica, most beautifully situated at the foot of a fir-covered hill. We lunched together at the hotel, and, while my friend was doing his business, I took my net and wandered up the shady mountain-side. There was a Turkish cemetery at its foot, where the grass was long and uncut, and I ventured to climb the fence to see what could be caught. The reward was found in a useful series of *Argynnis amathusia*, fresh from the chrysalis, which were flying, in company with *Melitæa aurelia*, among the graves. Much was not to be expected under the trees on the hillside, but I found a clearing where apparently it was intended some day to erect a pavilion, and here upon the wild flowers I took a specimen of *M. trivialis* which was flying with *M. didyma*, *Plebeius argus*, *Polyommatus icarus*, *Pararge mæra*, and other common insects such as *L. sinapis*, *P. napi*, *A. cratægi*, and *P. egeria*. On the drive back to Gorazda we were overtaken by the car, and abandoning the carriage to the care of the driver, we all crowded into it—seven of us all told, belonging to four different nationalities, and each trying to narrate in his own tongue the events of the day. Mr. Barraud had done no butterfly-hunting, but the car, after adventures many and amusing, had succeeded in reaching Plevlje, in the sandjak of Novi-Bazar, where its appearance caused a great sensation.

A day's collecting at Gorazda yielded poor results. In the





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CAJNICA, BOSNIA.



morning we lost ourselves in the cow-tracks among the scrub on the mountains, and got nothing but a few specimens of *T. ilicis*, while my most notable capture in the afternoon was a bleached *E. janira*, which might have come from the New Forest.

From Gorazda we went on to the town of Foča, a quaint and curious place on Austrian territory, but thoroughly Turkish in its appearance, with many mosques and picturesque but squalid bazaars. Like all these border towns it was full of the soldiers of the Emperor Franz Josef. The morning of June 25th, the day after our arrival, was intensely hot, and as we climbed up to a Dervish monastery on a hill above the town, it was evident that a storm was brewing. However, as time was precious, we persevered, and on a grassy slope we secured a few specimens of *Melanargia galatea* var. *turcica*, a darker form of the species than I had taken elsewhere. The only other capture worth mention was a large and well-marked female *C. pamphilus* of the southern summer form, with unusually broad dark borders, especially to the hind wings. But the storm was quickly gathering, and hardly had we got back to the town before it burst upon us with all its fury. After lunch we left Foča in torrential rain, which fortunately did not last long, for a thirty miles drive to the station of Ustipaca, on the wonderful eastern railway which Austria has built for strategic purposes through apparently inaccessible gorges right up to the Servian border line, where it abruptly stops. From Ustipaca we caught the evening train back to Sarajevo.

Our next excursion was to the better wooded country in the north-west of Bosnia, travelling by railway from the capital to Jajce, one of the most interesting and historic places in the Balkans. Here there is an excellent hotel, with a landlord who speaks English. Near Jajce is an idyllic spot called Jesero, about three hours' walk up the valley of the Pliva, and on the morning of June 29th we drove there, intending to explore the valley beyond the village and walk home in the afternoon. The road to Jesero led by the side of two pretty lakes of the same name, and in the village a government resthouse has been erected, where a simple lunch, in which trout from the river is the chief item, can be obtained. The morning was bright, and as we passed through the village we saw several specimens of *Apatura iris* and *A. ilia* var. *clyte*, but did not succeed in securing either of them. The most abundant butterfly was a *Melitæa*, which turned out to be *M. athalia* var. *mehadensis*, and this insect settled in little companies on damp places in the road and on the horse-droppings. Wherever we went in the northern districts of Bosnia we met with it in great numbers. Just as we were leaving Jesero, near a picturesque mill, Mr. Barraud caught a fine specimen of *Eugonia xanthomelas*, the only one seen in the course of our wanderings. We walked a mile or so along

the road beyond Jesero, and then turned up a valley on the right, where I saw *Parnassius apollo*. We had ordered lunch to be prepared for us at the little restaurant by the lake, and on our way back, in a flowery corner on the edge of a small field, we observed some Theclids flying over the brambles, and eight specimens of *T. spini* and one of *T. acaciæ* fell to my lot. After we had done justice to the trout we started to walk back to Jajce, intending to work the boggy ground by the lake-side, but the excessive rainfall had caused a rise in the water level, and it was quite impossible to wander many feet from the roadway. At one spot, however, where the ground was a little higher and dryer, we were able to investigate a small meadow in which the grass was uncut, and here I took several tiny Melitæas, only 28 mm. in expanse, which puzzled me. They proved to be dwarf specimens of *M. aurelia*, a species of which I took a short series of varying sizes on the margins of these low-lying meadows. *A. phœbe*, too, was flying in nice condition, and several specimens of *A. thetis* were added to the bag. The following day we determined to see what was to be had on higher ground, so we engaged a guide, hoping to find some mountain butterflies. But the quest proved rather disappointing, the hillsides being either closely grazed or so steep and stony as to prove very poor collecting ground. The most noteworthy capture was the striking aberration *navarina* of *M. athalia*, which I found in a meadow by the side of the railway on our homeward journey. Over the skrees *S. hermione* was flying, and at a turn of the footpath *Lycæna arcas* found its way into the killing-bottle. After dinner that evening we strolled about the village, boxing a few moths from the white walls of the houses, below the arc lamps, which attracted night-flying insects in swarms, but which were too high up to be of much use for collecting purposes. *Cherocampa porcellus* and *Cossus ligniperda* were the most conspicuous insects taken.

From Jajce we went to Banjaluka through the beautiful and verdant gorge of the Urbas, and on the fifty miles drive I think I saw more butterflies than during the whole of the rest of the holiday put together, the Melitæas swarming on the road in countless thousands. It was glorious butterfly weather, but the way was long and there was no time to unfurl the nets. At Banjaluka, after a most interesting day spent in the market with the cameras, taking snapshots of the natives attired in striking and brightly coloured garments, Mr. Barraud and I parted company, my friend starting on his long homeward journey to England, while I returned for another day among the lepidoptera at beautiful Jajce. I decided next morning to work the wooded hill, on the lower slopes of which the old Christian village is built, and which had an inviting look from the terrace of the hotel. So, crossing the bridge, I



ascended the steep pathway between the houses and gardens. In a damp place in a maize field I found *L. arcas* flying with *A. phœbe*, the latter in such shabby raiment as not to be worth catching. Higher up, in an uncut meadow, I got several dark *M. galatea*, but as a number of men were at work close by I thought it best to keep out of the standing grass. Then following a narrow track through a cornfield I hit upon some more meadows and grassy places among the woods, where *C. edusa*, *A. aglaia*, *A. adippe*, *E. janira*, and the common *Melitæas* and "blues" abounded.

On July 5th at Travnik, a curious old town, I spent the best hours of the morning photographing the interesting scenes in the market, held round a painted mosque, which made an artistic background for my pictures. Then I went for a walk along the valley in search of insects, and got several nice male specimens of *Lycæna meleager* and watched an Apaturid, which I think was *A. ilia* flying round a willow tree, while *M. galatea* sported with *C. edusa* on the railway bank. But, as was so often the case, the bright morning was succeeded by a cloudy afternoon, and although I continued to work, this time on the north side of the town and in likely situations, nothing extraordinary was found. Travnik has every appearance of being a good butterfly place, and given a favourable season, the slopes of Mount Vlassic, which rises above the town, would doubtless be worth working. The insects I took at Travnik included *C. hyale*, *L. sinapis*, a dark form of *P. orion*, *B. dia*, and *A. phœbe*.

On July 6th I found myself in Illije, a fashionable bathing station a few miles from Sarajevo. Half an hour's walk from the hotels, through a shady avenue which appeared to be endless and where, of course, there was no work for the net, brought me to the source of the river Bosna, which rises in the pretty grounds of a restaurant at the foot of the mountains. In the meadows by the side of the ponds a single specimen of *Erebia ligea*, with the white markings of the under side strongly developed, was found in company with *E. æthiops*, which was fairly abundant, *A. phœbe*, *M. var. mehadensis*, *M. dictynna*, *M. didyma*, and *P. argus*. A beautiful male *A. iris*, the only Apaturid actually taken in Bosnia, was wheeling round the trees by the roadside, but a descent to earth proved fatal. *Dryas paphia*, in all the pristine beauty of its recent emergence, was flitting over the brambles, attracting the attention of a little Bosnian boy, who with a home-made net was trying to catch butterflies, while his parents were resting in the gardens. I returned home later in the day with this embryo entomologist who got me to name his captures for him. While I was eating my trout at the restaurant the cook brought me from the kitchen a specimen of *Mania maura*, so badly handled as to be hardly recognisable, but which had, of course, to be accepted with

thanks, and afterwards added to the collection of my little friend of the home-made net. At the foot of the hill close by was a bank covered with brambles and wild flowers where butterflies abounded. Here I took *Thecla quercus* and *Aphantopus hyperanthus*, the only representatives of the two species which I met with in the Balkans. The brambles proved very seductive to *L. camilla*, which was here in good condition; and higher up the hill, in a field, I got male *L. meleager*, *C. alciphron*, and *Zygæna carniolica*. This pleasant day at Illije ended my collecting in Bosnia, save for a short expedition on the slopes of the Trebevic mountain above Sarajevo, in search of *C. myrmidone* which, according to the books, ought to be found there, and for which I twice searched in vain.

On the whole my insect work in the Balkans was rather disappointing, but in every other respect the holiday was extremely successful, and proved to be one of the most interesting and enjoyable I have ever taken.



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