

A Week's Collecting in Teneriffe

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During October 1960 I was fortunate enough to have the opportunity to collect Lepidoptera on the island of Teneriffe, one of the Canary Isles, as part of an "air cruise" to Spain and North Africa.

We arrived there on the 12th, and booked in at the Hotel Las Vegas at Puerto de la Cruz. This town is situated on the north coast at the mouth of the Orotava valley, famous as a banana-growing region and one of the most attractive parts of the island. Also, according to Gurney¹, it is one of the best centres for collecting. When he was there in 1928 it was known as Puerto Orotava.

The Canary Archipelago consists of seven islands and six islets. Situated in the Atlantic Ocean from 50 to 230 miles west of the coast of Africa, opposite the western end of the Atlas mountains, between latitudes 27° and 28°N., they are volcanic in origin, many of the volcanoes being still intermittently active. Teneriffe is the largest, and being located on the western side of the group receives more moisture than most of the others. This precipitation is assisted as regards the western part by the presence of the highest peak of the archipelago, the 12,180 ft. cone of Teide, the central volcano. The Orotava valley is in this area, and hence the vegetation is comparatively lush.

The island is about 50 miles long and about 30 miles wide at the widest part, being roughly triangular in shape. Mountain ridges run along the greatest diameter, meeting Teide in the centre, so that on travelling inland one also travels upward. There are four zones of vegetation:

- (1) *Maritime*: From sea-level to about 1,000 ft. This is sub-tropical in climate and contains most of the banana plantations.
- (2) *Monte Verde*: From 1,000 to 3,000 ft. The main zone of cultivation, with Citrus, Sugar-cane, etc. at lower levels, and Brassicas, root-crops, Legumes, etc., higher up, merging eventually into extensive areas of Laurel and Chestnut forest.
- (3) *Pine Forest Zone*: 3,000 to 4,000 ft. Entirely forested with several species of pine, including the rare Canary Cedar.
- (4) *Cumbres*: 4,000 to 7,000 ft. Ericas, Brooms, etc., growing sparsely on rough expanses of old and recent lava flows.

Finally, one comes to the cone of Teide, consisting mostly of volcanic ash with practically no vegetation.

The sides of the mountains are scored by deep gullies called "barrancos", which are nearly always dry, but were presumably formed during an extensive pluvial period of climate in early post-glacial times. One of these, the Barranco Martiánez, is mentioned by Gurney¹ as particularly favourable for Lepidoptera. As it was only about a quarter of an hour's walk from our hotel it formed my first objective.

The western side was accessible by means of a track along the lower edge of a large banana plantation. Soon after starting along this I was delighted to see a large butterfly sailing round a tall bush covered with small orange flowers, which was later identified as Lantana, an Indian shrub which has spread widely in the warmer parts of the world. When netted it proved to be a good specimen of *Danaus plexippus* L. A number of others soon appeared, and several were

taken, mostly in reasonable condition, though some were rather worn. Most were larger than the common North American form. Capture was not as easy as one at first imagined, since although their flight appeared slow and lazy they had considerable speed and could alter course with great rapidity.

Two somewhat smaller specimens were noted and captured. These turned out to be *D. chrysippus* L., both in excellent condition and of typical form. The forms *aleippus* Cram., with white hindwings, and *dorippus* Klug, without the black and white markings at the tips of the forewings, are recorded from Teneriffe, but unfortunately I saw none.

Four other species were noted. By far the most common was *Zizera lysimon* Hüb., which was later found to be abundant in all areas visited at lower elevations. Their flight is always close to the ground, often only a few inches above it, making capture difficult without damaging the net. *Lampides boeticus* L. was found in a very restricted area flying over an expanse of a clover-like plant in a corner of the plantation. It was numerous here, and a series was taken in quite a short time. I was under the impression that it was a piece of waste ground, but this surmise was rudely shattered by the appearance of a very irate plantation worker, who shouted what must have been some very earthy words in Canary dialect and unmistakably indicated that I should vacate the area in as short a time as possible! *Pieris rapae* L. was common and of typical form; while, after leaving the plantation, a good example of *Pararge xiphioides* Staud. flew over the wall into the road.

Next day I took a bus to Santa Ursula, a village on the eastern flank of the Orotava valley about five miles from Puerto de la Cruz. Gurney¹ mentions "a large stretch of virgin ground" near here. I found the only place corresponding with this description, but it proved singularly unproductive, *Zizera lysimon* Hüb., *Lycæna phleas* L. (typical form), *Pieris rapae* L. and one *Pararge xiphioides* Staud. being the only species seen, and these not in any numbers. However, while waiting in the plaza for the bus back to base, I noted a rather worn specimen of *Vanessa callirhoe* Hüb. visiting flowers in the small public garden there, and succeeded in capturing it.

The following day operations were centred on La Orotava, the principal town of the valley, situated at an elevation of about 1,500 ft. and four miles from Puerto de la Cruz. Gurney¹ states that *Pieris cheiranthi* Hüb. occurs in the vicinity. The whole surrounding area was found to be a mass of smallholdings, with very little uncultivated ground, apart from path borders and odd corners. I, therefore, set out along the road winding uphill to the south of the town and systematically examined any likely places.

The ubiquitous *Zizera lysimon* Hüb. was first noted, though not as abundant as on the coast. *Pieris rapae* L. was as common as ever. My first stopping place, however, yielded a most unexpected surprise. It was a small triangle of uncultivated ground between a curve of the road and a small vineyard, and almost the first butterfly noted was a "blue" which was obviously neither *Z. lysimon* nor *Lampides boeticus* L. It was netted, and turned out to be a nice example of *Cyclgrius webbianus* Brullé. This remarkable species is confined to the island of Teneriffe, and is quite distinct from any other Lycaenid. The most intriguing fact was, however, that the time of appearance is authorita-

tively 1, 2, 4, stated as being in March and June, and the localities mainly in the Pine-forest Zone. No other specimens were seen.

Other species taken were *Pontia duplidice* L., *Pararge aephanodes* Staud., *Lycuena phlaras* L., *Lampides boeticus* L., and the moths *Galgula partita* Guen. and *Rhodometra saccharia* L. A specimen of *Pieris cheiranthi* Hüb. was seen but unfortunately not captured.

I expected the next day, the 16th, to be of little interest from the entomological point of view, as my wife had recruited me for a bus party to visit Las Cañadas, the old crater of the volcano, about 7,000 ft. above sea-level. Apparently in prehistoric times some gigantic volcanic explosion had blown off the top of the mountain, leaving a crater many miles in diameter. The ash cone of Teide rises from the floor of this for another 5,000 ft. or so.

The ride through the forest zone was very interesting, and I would have been delighted to have stopped at a number of entomologically promising spots on the way. This was not possible, however, and eventually we reached the crater and proceeded to the Parador de Turismo in the most picturesque part of it.

We stayed here for about half an hour to enable us to view the surroundings and imbibe refreshment. I had a look at the small garden of the Parador, and was surprised to see a specimen of *Fanessa cardui* L. and several small dark "blues" flying among the flowers. I netted one of the latter and was delighted to find that it was another example of *Cybelius webbianus* Brullé. A number of others were taken, all of this species, and many in reasonably fresh condition. All too soon we had to board the bus for the return journey; nevertheless, I was well satisfied with the results of the trip. In addition to the entomological treasures, I had also obtained some nice colour transparencies and ciné film of the crater and forest zone.

In the evening a visit was made to the Hotel el Taoro, standing in parkland high up behind the town. There was a very pleasant open terrace scattered with tables and lit by mercury vapour lamps. We sat down and ordered drinks, and I noticed a number of moths round the lights. At first I was too self-conscious to attempt to capture any, although I had a pocket folding net and a few glass-bottomed boxes with me. However, two or three glasses of the local fire-water soon dispelled my reticence, and I climbed on to the balustrade to reach the level of the lamp attracting the largest number of moths, much to the horror and consternation of the other guests! I took specimens of *Plusia aurifera* Hüb. and *P. signata* Fab. among others.

I was not well equipped for night work, but on several evenings during my stay I tried "dusking", once in Barranco Martiánez and at other times along the footpaths between villa and plantation walls. A number of species were taken, several of which have not yet been identified. Among those named to date the two *Plusias* mentioned above were quite common, also *Hypena lividalis* Hüb. and *Galgula partita* Guen.

On the 17th I again went to the Barranco Martiánez and took further examples of *Danus plexippus* L. and *D. chrysippus* L. A single specimen of *Fanessa huntera* Fab. was also seen, but not captured.

We had to return to England on the 19th. I felt well satisfied with the results of the few days collecting, and hope to return again in the

future, perhaps for a longer period and at a different time of the year. The Lepidoptera of the Canary Islands are particularly interesting in view of the relatively large number of unique species and races, and so little appears to have been published on this subject that I am sure many surprises and discoveries await any serious lepidopterist who is in a position to spend a prolonged sojourn there. The occurrence of adult *Cybelius webbianus* Brullé in October is an example of this, though as Sheldon² concluded, it is likely that all species are continuously brooded owing to the very small temperature range (63°-77° F.) between summer and winter. The only other factor likely to influence the life-cycle is availability of the foodplant, which, ruling out temperature changes, must depend upon moisture and length of day. Fluctuations of the former are partly compensated for by the excellent irrigation systems of the islands, especially Teneriffe, while the day length varies by only four hours or so between the seasons.

REFERENCES

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Some Notes from a 19 0 Diary

By NIGEL T. EASTO.

Late emergence of *Anthocaris cardamines* L.: On 18th June 1959, in my garden at Mortimer, I found four larvae of *Anthocaris cardamines* L., two of them full fed and two nearly so. Three of them were feeding on the seed pods of *Hesperis matronalis* (sweet rocket) and one of them on *Sisymbrium alliaria* (Jack-by-the-hedge). A careful search failed to reveal any more and, as they were all of approximately the same size, it can be assumed that they had their origin with the same female; the plants were all within an area of one square yard.

Within four or five days all had pupated on the stems of the food-plant in the cage. They were all of the dirty straw form and were subsequently stored in a 3" glass-topped tin, still spun to the stems of the foodplant, in an unheated room in the house from June 1959 to March 1960.

In April they were removed to a cage, still indoors, and a daily watch maintained. All appeared in good condition, not having dried up, nor were they discoloured in any way. None of the four pupae emerged, however, nor did any of them show signs of colouring up. The unheated room in which they were kept opened into another room which was inhabited during the winter months. The larvarium received daylight from a top light panel measuring about 1½' x 2'. It is well known, however, that most butterflies will emerge in complete darkness and, in addition, the weather was very warm throughout May and continued so until 23rd June, after which summer failed to return.