MY HIGHEST BUTTERFLY CATCH OF A SINGLE DAY IN THE MIDDLE EAST

by E. P. WILTSHIRE

Stimulated by the interesting notes of Dr. C. L. REMINGTON and Mr. F. HEMMING in Vol.9, I venture to send in the following notes culled from my entomological diaries; although my day's total is less than theirs, it is typical, I think, of a region of considerable lepidopterological interest.

I have been collecting Lepidoptera, with special attention to moths, in my spare time in the Middle East (S.W. Asia) for over twenty years. My excursions have always been in arid subtropical places. These, it is well known, are comparatively poor in butterflies, though the conditions seem to favor Phalænidæ, Pyralidæ and Gelechiidæ more. The greatest number of species is to be found in the mountains, where precipitation is greater than in the plains. I have climbed over twenty different peaks in the Middle East, and it is clear that the date of flight of the maximum number of butterflies varies with the latitude. At 29° N., mid-May is best for butterflies (though mid-June is best there for moths). At 34° N., June-July produce maximum numbers.

Between 20 and 30 different species of butterfly in a day have frequently been taken on these climbs in Lebanon, Iraq and Iran (Persia). My record catch was 31 on May 12th 1940 on Kuh Barfi, at heights of 6000-9000 ft., near Shiraz, Fars, S.W. Persia. Perhaps in N. Persia or the Lebanon more could be taken.

The Kuh Barfi is one of four mountains surrounding Shiraz, a city which lies in a plain at over 5000 ft. above the level of the Persian Gulf, from which it is about 80 miles distant as the crow flies. These mountains were formerly wooded with oak, wild almond, and *Pistacia* in a scrubby sparse formation chiefly on northward slopes, but Kuh Barfi, owing to its proximity to Shiraz, is deforested except for a few localized bushes. The vegetation on which the butterflies depend are herbs, grasses, or at the best small *Rhamnus* and *Prunus* bushes; some of the herbs, however, might qualify as "dwarf shrubs", particularly certain *Astragalus* species. On the top of the mountain there is an old-established snow-storing industry, and in April-May it is frequented by muleteers who cut the dwarf shrubs and use them to cover over the snow which they have collected and packed into pits. During the summer they carry the snow on mule-back to Shiraz, a 6-hour trek, and the path taken by these caravans down the southern slopes of the mountain provides the easiest way to the summit. One drives to the nearest point on the Shiraz — Bushire road in ten minutes from the city centre, and reaches the summit after about three or four hours' walk depending on how many times one stops to catch butterflies or refresh oneself. The more time one spends catching on the way, the less time one has to catch at the top, and one finds quite different species at the top from those at the bottom.

The same path was taken by the explorer KOTSCHY in about 1840 and it is interesting to note that the path now no longer has the stream and waterfall which he described. There is, however, a waterhole still in use just above the

place where there clearly was formerly a considerable waterfall. One concludes that in the intervening century the water has sunk deeper into the limestone mountain and has been virtually lost to man.

The butterflies taken by KOTSCHY were listed by KOLLAR (1850) in *Denkschrift Akad. Wiss. Wien,* I, and included the descriptions of two new *Melitæa* species, *casta* and *persea.* For about a hundred years their identity remained a mystery to European lepidopterists who applied the two names wrongly to various Middle East *Melitæa* forms.

I climbed Kuh Barfi on May 3 & 12, 1940, and May 9, 1941; the butterfly totals on these three excursions were respectively 25, 31, and 27. The total butterfly species taken during these three visits, all made during the first half of May along the same route to the summit, were 46.

The object of my visits, of course, was not to catch as many butterfly species as possible; it was rather to investigate what, between the explorations of KOTSCHY and BRANDT (1937), had been *terra incognita* to lepidopterists. The most important result was my recapture of topo-typical *M. casta* and *persea* and discovery of the new species *M. consulis mea.* FRED BRANDT did not actually climb this mountain.

Here is the list of 46 species taken on these three visits; the 15 not taken on May 12th are in brackets. I give the height at which each was taken, in feet.

PAPILIONIDÆ

1. (1) *Papilio machaon centralis* Stgr. (5000-9000)
1. (2) [*Papilio alexanor* Esp.] (8000)

PIERIDÆ

2. (3) *Pieris rapæ iranica* LeCerf (8000)
2. (4) [*P. krueperi* Stgr.] (8000)
3. (5) *Pontia daplidice* L. (7500)
3. (6) [*Pontia glauconome iranica* Bien.] (5000-6000)
3. (7) [*Glycestha aurota* F.] (5000-6000)
3. (8) [*Anthocaris gruneri armeniaca* Christ.] (8000-9000)
3. (9) [*Colotis fausta* Oliv.] (5000-6000)
4. (10) *Colias croceus* Fourc. (5000-6000)
5. (11) *Colias aurorina libanotica* Led. (8000-9000)
6. (12) *Gonepteryx farinosa* Zell. (7500)

LYCÆNIDÆ

7. (13) *Nordmannia abdominalis gerhardti* Riley (6000-8000)
7. (14) [*Callophrys suaveola* Stgr.] (8000-9000)
8. (15) *Tomares romanovi* Christ. (6000-7000)
8. (16) [*T. callimachus* Ev. = *hafis* Koll.] (6000-7000)
9. (17) *Apharitis maxima* Stgr. (7000)
10. (18) *Lycæna phlœas* f. *eleus* F. (6000-7000)
10. (19) [*L. thersamon kurdistana* Riley] (6000-7000)
10. (20) [*Glaucopsyche cyllarus æruginosa* Stgr.] (7000-9000)
11. (21) *Turanana panagæa* H.-S. (8000-9000)
12. (22) *Plebejus pylaon iranica* Forst. (7000-8000)
13. (23) *P. eurypilus* Freyer (7000-8000)
14. (24) *Polyommatus icarus persica* Bien. (7000-8000)
15. (25) *P. loewii* Z. (5000-6000)
16. (26) *P. hyrcana* Led. (7000-8000)

NYMPHALIDÆ

17. (27) *Vanessa cardui* L. (6000-9000)
18. (28) *Melitæa cinxia amardæa* Gr.-Gshm. (8000)
19. (29) *M. consulis* Wiltshire (8000)
20. (30) *M. phœbe doræ* Graves (6000-9000)
21. (31) *M. casta* Koll. (9000)
21. (32) [*M. trivia robertsi* Butl.] (6000-9000) (larvæ seen on 12.v.40)
22. (33) *M. persea* Koll. (7000-8000)
23. (34) *Damora pandora* Schiff. (6000-9000)
24. (35) *Fabriciana niobe taura* Roeb. (6000-9000)

SATYRIDÆ

25. (36) *Melanargia larissa* Stgr. (6000-7500)
26. (37) *Chazara thelephassa* Hübn. (5000-6000)
27. (38) *C. persephone* Hübn. ditto
27. (39) [*Pararge megera iranica* Riley] (8000)
27. (40) [*Epinephele lupinus centralis* Riley] (6000-8000)
28. (41) *Cœnonympha saadi* Koll. (6000-7000)

HESPERIIDÆ

28. (42) [*Erynnis marloyi* Boisd.] (7000)
29. (43) *Carcharodus floccifera orientalis* Rev. (7000-8000)
30. (44) *Muschampia tessellum tersa* Evans (7000-8000)
30. (45) [*Muschampia poggei* Led.] (7000-8000)
31. (46) *Thymelicus hamza nova* Rev. (7000-8000)

I might add that on May 12, 1940, I also took nine day-flying moth species and 5 lepidopterous species as larvæ.

The total number of butterflies for the province of Fars, given by BRANDT (1938), was 85. There are in fact at least four more than this in the province and the total is probably 90 or more. Of these, however, about 20 occur very much higher and about 80 miles north of Shiraz or very much lower and about 50 miles west of Shiraz and must be ruled out as not inhabiting the Shiraz district. The proportion therefore of species taken in one day to the total butterfly fauna of the same district is 31/70 or about 2/5, almost exactly the same as that reported by Mr. HEMMING from Digne (56/135).

I have said that if one goes outside the Shiraz district I think there are about 90 butterfly species in Fars. This is less than the 134 species recorded from the Lebanon by ELLISON and myself (1939); and the Elburz range in N. Persia must have a total even exceeding that of the Lebanon, considering that it contains two quite different climatic areas, therein differing from other parts of the Middle East which I know. I find however that in my excursions in the Lebanon and Elburz I failed, for various reasons, to exceed the total achieved on Kuh Barfi. A great deal depends on one's object on any given excursion, and for this reason the fraction 2/5ths may not have much significance.

References

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