

JOURNAL OF ENTOMOLOGY.

NO. VII.—JANUARY 1863.

V.—Notes on the Genus *Iphias*; with Descriptions of two new Species from the Moluccas. By ALFRED R. WALLACE.

THE genus *Iphias* (Boisduval) has hitherto consisted of but two species, both known since the time of Linnæus. Having myself discovered in the Moluccas two new species allied to *I. leucippe*, and finding that *I. glaucippe* consists of several distinct varieties, each inhabiting a limited district, I propose to point out the characters distinguishing these, and make some remarks on the habits and distribution of this interesting genus.

The species of *Iphias* are all large and handsome butterflies, frequenting the skirts of forests and the margins of streams in forest districts. The males often settle on the ground in damp or muddy places, in company with many *Papilionidæ* and *Pieridæ*. When thus resting, with wings erect, they are at once distinguishable from all around them by the peculiar attitude they assume, the upper wings being depressed between the lower pair, so that its basal half is completely hidden by them. As probably a consequence of this, we find that this basal half of the upper wings is always pale in colour on the under side, and devoid of the characteristic markings of the exposed portions. The females fly rather low, in woods and thickets, and, seldom coming out into the open grounds, are therefore less frequently captured.

The three species found in the Moluccas are all scarce insects, whereas that which inhabits the western islands of the Archipelago and the continent of India (*I. leucippe*) is much more abundant, and is one of the most striking and beautiful of the insect ornaments of these regions. When in fine condition, the red patch on the upper wings has iridescent violet reflexions, which are still more conspicuous in the superb *I. leucippe* of Amboyna.

I have retained Boisduval's name *Iphias* for this genus, because he first properly characterized it; and his name was, I believe, in universal use among entomologists till Mr. Doubleday, in his "Genera," revived Hübner's forgotten name *Hebomoia*, thereby doing his best to introduce confusion and misunderstanding into a perfectly satisfactory and uniform nomenclature.

I presume that the proper application of the law of priority is to determine among conflicting names still in use, and thus establish a uniform nomenclature. To apply it to rake up obsolete names, and thus create synonyms and produce the confused nomenclature it was intended to abolish, is an abuse which ought not to be tolerated.

Specimens of *I. glaucippe* have been sent from N. India and Ceylon, while *leucippe* is found in Ceram, the easternmost of the Molucca group. No species of this genus was seen during my many months residence in New Guinea and the islands of the Papuan group, nor has any been discovered in Australia. Three species, and those the most beautiful and striking, inhabit a small district in the Malay Archipelago—the Moluccas or true Spice Islands; while one only, subject to much variation, spreads over an area of very much greater extent, from Celebes to India. From these facts it might be concluded that the Moluccas were the true metropolis and original seat of the genus, and that it had spread itself thence to the peninsula and continent of India. But, from the general character of the fauna of the Moluccas, I have come to the conclusion that it is altogether derivative. The great mass of its forms may be traced to New Guinea, while a few only bear the stamp of the Indian region. I am inclined, therefore, to the opinion that the true home of the present genus was on the continent of Asia, at a time when it embraced the great islands of the Archipelago, Java, Sumatra, and Borneo; that it has thence spread to the Moluccas; and owing to the isolation and difficulties of communication between those comparatively small islands preventing the frequent crossing of the different races, they have become modified into the distinct forms they now exhibit; while the races inhabiting those larger islands, which oppose to each other long lines of coast, have had their variations checked and retarded by frequent intermixtures of races, so as to result in those less marked and less stable forms which we have found it most convenient to class as local varieties.

Iphias glaucippe.

Papilio glaucippe, Linn.; Cramer, t. 164; Bois. Sp. Gen.

I. alba; alis anticis macula magna apicali rubro-aurantia plus minusve

nigro marginata, maculisque nigris serie submarginali digestis. ♀.
 Alis anticis margine punctisque nigris dilatatis; posticis margine
 serieque punctorum nigris.

Hab. N. India; Ceylon; and Malayan Islands to Celebes.

Loc. var. (1). *Timoriensis*.

Has the orange-red apical patch rather lighter in colour than in the other varieties, with a very narrow dark border on its upper and outer margin, while on the inner edge it is simply tinged with yellow where it comes in contact with the white ground-colour of the wing. The submarginal row of spots is smaller, and sometimes almost obsolete. Rather smaller than the other forms.

Hab. Timor.

Loc. var. (2). *Philippensis*.

The red patch is interruptedly black-margined on its inner edge, where it is yellow-tinged; the submarginal triangular spots are large, and the two upper ones confluent with the margin. The female has a pale sulphur tinge.

Hab. Philippine Islands (B. Mus.).

Note. Specimens from the Island of Lombock agree best with these, but have the small submarginal spots of the Timor form (B. Mus.).

Loc. var. (3). *Javanensis*.

The red patch has a narrow, irregular black margin on its inner side, and the row of triangular spots is large and well defined. The female is very slightly yellow-tinged.

Hab. Java.

Note. The Indian and Ceylon specimens in the B. Mus. are very like this form, but have the red-and-black apical patch smaller.

Loc. var. (4). *Celebensis*.

These generally resemble the last; but the wings are more pointed than in any of the preceding, and the apical patch is decidedly larger, the red colour spreading into the discoidal cell, and the black reaching across quite to the outer angle of the wing. The inner black margin of the red spot is also broad and clear.

Hab. Celebes.

Loc. var. (5). *Borneensis*.

In this form the wings are pointed as in the last; the red spot is much smaller, with the entire margin and the apex of the wing broadly black.

Hab. Borneo.

Remarks.—Of these varieties, the first and last are the two extremes, and may be distinguished at a glance. Had no others existed, they would have been at once characterized as very distinct

species. But the allied forms here described break down the boundary-lines that separate them, and others probably yet remain to be discovered, so that it seems more convenient to consider them as local races. The best-known form of the species, that from India and Java, has characters which are nearly intermediate between the others, and may thus be considered as the typical race. All the varieties have very nearly the same creamy-white ground-colour of the wings and the same peculiarly irrorated under surface.

Iphias leucippe.

Papilio leucippe, Cram. t. 36; Bois. Sp. Gen.

I. flava; alis anticis magna ex parte aurantio-rubris, margine exteriori punctorum serieque submarginali nigris. ♀. Alis anticis nigris rubro striato-maculatis; posticis sulphureis, margine punctorum serieque submarginali nigris.

Hab. Amboyna; Ceram.

This fine species does not seem to vary, and is the richest in colour of the genus. It is by no means abundant in Amboyna, where it is only to be met with in the forest-clad mountains of the interior. In Ceram it is still more scarce.

Iphias leucogynia. (Pl. I. fig. 1, ♂, fig. 2, ♀.)

♂. *I. supra* sulphurea; alis anticis macula magna centrali fulvo-rubra, apice marginibusque exterioribus nigris. Subtus fulvescens; alis anticis dimidio apicali fusco irrorato; posticis sparsim irrorato-maculatis.

♀. *Supra*, alis anticis fusco-nigris, margine interiore basin versus albo; posticis albis, margine exteriori maculisque rotundatis submarginalibus fusco-nigris. Subtus alba, dense fusco irrorata, dimidio basali alarum anticarum immaculato sulphureo tincto.

Exp. al. 4·5.

Hab. Bouru (Ins. Moluc.).

The male somewhat resembles *I. leucippe*, but is of a rather paler yellow, which colour extends on the upper wings to the median nervure and beyond its 3rd branch. The red of the upper wings is nearly the same in colour as in that species, but much less in extent, the outer margin and apex being broadly black. The submarginal row of black spots is also rather larger and less clearly defined.

The female is remarkable by the entire absence of any yellow or red colour. The lower wings are of a semitransparent pearly white, which extends on to the upper as far as the yellow does in the ♂. The rest of the upper wings, the outer margin of the lower, and a submarginal row of six spots are dusky black.

The head and thorax in both ♂ and ♀ are brown-tinged; the abdomen of the colour of the wings respectively.

The under surface has the characteristic markings of the genus; but in the ♀ they are more dense, while in the ♂ the lower wings have only scattered spots and striæ.

I first found the female of this interesting species flying among dense thickets in the island of Bouru, and was completely puzzled by its appearance, till I one day caught a glimpse of the under side of its wings, when I knew it must be an *Iphias*. I afterwards obtained a few males; but it was never abundant.

Iphias sulphurea.

♂. *I. supra pallide fulvo-sulphurea*; alis anticis apice late nigro, maculaque magna apicali fulvo-rubra; margine costali grisea. Subtus fulva fusco irrorata; alis anticis apice obscuriore, basi flava immaculata.

♀. Alis anticis macula rubra apicali parva; posticis margine posteriore intus dentato maculisque submarginalibus nigris.

Exp. al. 4·5.

Hab. Batchian, Gilolo (Ins. Molucc.).

The male resembles at first sight the Borneo var. of *leucippe*, but is entirely of a pale lemon-yellow instead of white. The black apical portion is smaller, only touching the end of the discoidal cell; and the red patch is very much smaller, containing only three triangular black spots, the two upper of which join the outer, and the lower the inner portion of the black border. The lower wings have the posterior margin tinged of a deeper yellow.

The female generally resembles the male, but the black extends a little further on the upper wings, and on the lower forms a broad band, dentated within along the posterior margin. Within this is a row of six subtriangular spots, as in the females of the other species. Beneath, the lower wings and the apical portion of the upper are rich fulvous yellow, thickly covered with dusky irrorations, which are darker on the inner margin of the lower and the apex of the upper. The basal portion of the upper is pale sulphur-yellow.

This fine species occurred in Batchian (a single male specimen, taken on the margin of a stream), and in Morty Island, to the N. of Gilolo, whence my collector, Mr. Allen, has sent me both sexes.