

scales, except the inferior and posterior sides of the humerus, which are granular.

The ground colour of the upper parts is greyish or brownish, darkest along the margins of the vertebral band; a broad yellowish or yellow dorsal band reaches from the occipital shield to the tail, where it is gradually lost. The lower parts are whitish. In one of the two specimens, the sides, the belly, and the lower part of the tail are longitudinally lined with blackish.

	inches. lines.	
Distance between the tympanum and the extremity of the snout.....	0	5 $\frac{2}{3}$
Distance between the tympanum and the vent ..	1	4
Length of the tail .....	4	0
Distance between the extremity of the snout and the anterior margin of the orbit .....	0	2 $\frac{2}{3}$
Distance between the anterior angles of the orbit	0	2 $\frac{1}{3}$
Length of the fore-leg .....	0	8
—— of the hind-leg .....	1	3

## 9. DESCRIPTIONS OF BUTTERFLIES FROM THE COLLECTION OF MR. WALLACE. BY W. C. HEWITSON.

(Annulosa, Pls. LXVI. LXVII.)

### PAPILIONIDÆ.

#### 1. PAPILIO PARADOXA, var. (Pl. LXVII. figs. 1, 2, 3, and Pl. LXVI. fig. 4.)

*Zelima paradoxa*, Zinken Sommer, pl. 15.

*Papilio paradoxus*, Westw. Orient. Ent. pl. 9.

*Papilio telearchus*, Hewitson, Trans. Ent. Soc. ii. n. s. pl. 6.

Upper side of male (fig. 1) dark brown; both wings with a submarginal band of white spots; anterior wing with its outer half glossed with blue; two spots within the cell, one near the costal margin and one near the costal margin beyond the middle, light blue.

Under side of a uniform rufous-brown, with the submarginal spots as above.

Female (fig. 2) rufous-brown; both wings with a submarginal band of white spots as in the male. Anterior wing with its outer half dark brown glossed with blue; a longitudinal ray and two spots of white within the cell; a transverse curved band of hastate white spots tinted with blue beyond the middle; two rays of dirty white forming a triangle near the inner margin; the margin itself of the same colour. Posterior wing with a loop-ray of white within the cell, and similar rays between the nervures, each ray having at its termination a lunular spot also white; the outer margin spotted with white; under side as above, except that there is no blue.



*Variety A, female (fig. 3).*

Dark brown; both wings with a submarginal band of white spots; anterior wing with two white spots within the cell, and five large white hastate spots near the apex; posterior wing with the outer margin spotted with white.

*Variety B, female (fig. 4).*

Anterior wing dark brown; posterior wing rufous-brown, with a ray of lighter brown within the cell and between each of the nervures; a submarginal band of rufous lunules; the outer margin spotted with white.

Expanse, ♂ 4 inches, ♀  $4\frac{7}{10}$  inches.

*Hab.* Borneo.

Widely as the four Butterflies figured in the two plates differ from each other, I have little doubt that they are of the same species, —varieties of *paradoxa* of Zinken Sommer, and also of *telearchus* of Hewitson.

The typical *paradoxa* is from Java. The insects now described were taken in Borneo by Mr. Wallace. *Telearchus* is a native of Sylhet.

2. *PAPILIO NOCTIS*, Hewitson. (Pl. LXVI. figs. 5, 6.)

Upper side of female dark brown; all the nervures, except those which enclose the cell, margined with lighter colour, with white near the apex of the anterior wing and the outer margin of the posterior wing; posterior wing with a band of dirty white near the outer margin; outer margin of both wings light yellow.

Under side as above, except that the margins of the nervures of the anterior wing are whiter, and that the outer margin of the posterior wing is broadly cream-colour, marked with a double row of black spots.

Expanse  $4\frac{9}{10}$  inches.

*Hab.* Borneo.

I had at first named this Butterfly *Papilio nox*, believing it only a variety of that species. Having since seen several females of *nox*, none of which have either the light margin or black spots of the posterior wing of this insect, I have thought it better to consider it at present as a distinct species; I have not, however, done so to follow in the steps of those who give names to varieties, because I think that custom entirely indefensible.

The Butterflies of the East seem to be subject to vary more than those of other countries.

It is usual amongst entomologists to argue, that if two insects, however closely resembling each other, come from distant localities, they must be distinct species. I would reverse the argument and say, that two insects, differing but slightly, are most likely distinct species if they come from the same locality; but if they come from a distance, they are most likely the same species changed by the



difference of locality. Those localities need not be far distant from each other to produce the variety, if the sea divides them.

10. ON A NEW SPECIES OF THE FAMILY PAPILIONIDÆ FROM  
BATCHIAN. BY GEORGE ROBERT GRAY, F.L. & Z.S., ETC.

(Annulosa, Pls. LXVIII. LXIX.)

In the Catalogue of the family of *Papilionidæ*, which I formed on the specimens contained in the Collection of the British Museum, I enumerated several species that belong to the subdivision *Ornithoptera*, which had previously been considered as only varieties of *Papilio priamus*. It now falls to my lot to add another splendid species (also supposed by some entomologists to form only a further variety of that insect), sent by the indefatigable collector and naturalist, Mr. A. R. Wallace, from the Island of Batchian, one of the Moluccas.

The beautiful golden colour of the insect about to be described, has induced the discoverer to propose for it the name of *Ornithoptera cræsus*, which I have adopted. I should otherwise have called it after Mr. Wallace himself, as a slight record of the valuable services he has rendered to entomology during his sojourn amongst the Eastern Isles. I am further led to describe this insect as distinct from any hitherto recorded, as, after a careful comparison with all the others, many peculiarities can be pointed out, which will be incorporated in the following account.

PAPILIO (ORNITHOPTERA) CRÆSUS.

Primary wings deep black, with the anterior band widening towards the middle, and this is of a golden orange-colour; this colour is also represented by an abbreviated band at the base of the inner margin, and by a few scattered specks on the inner and outer margins.

Secondary wings of a dull orange-colour, with some spots of kings-yellow; this difference of colour is occasioned by the semitransparency of the more decided spots of the under surface of the wings when the insect is held against the light; the base, subcostal and medial nervures, first subcostal nervules, and the narrow edge on the outer margin are deep black. A black spot is sometimes found between the second and the first discoidal nervules.

The under surface of the primary wings is most like that of *Ornithoptera richmondia* in the form of the markings, but they are of a rich golden-green.

The under surface of the secondary wings also closely approaches that of *Ornithoptera richmondia*; but it is of a golden-green, with a lengthened spot of rich kings-yellow above the black spot between the costal nervure and the first nervule, and a small spot below the black spot; the same kind of yellow spot above and below the black spot in each space between the first and second nervules





5.



4.



