XI. *Note on the Capture of the Paired Sexes of Papilio Cenea, Stoll.* (*P. Merope, auct.*), in Natal. By ROLAND TRIMEN, F.L.S., &c., Curator of the South-African Museum.

[Read May 4th, 1881.]

PLATE IX.

I HAVE the pleasure of laying before the Entomological Society some important additional evidence as to the sexes of the polymorphic *Papilio Cenea*, Stoll. (*P. Merope*, auct.), communicated to me by Colonel James Henry Bowker, F.Z.S., a practical naturalist and most accurate observer, who has collected and studied in the field throughout South Africa for many years, and has given special attention to Lepidoptera since the year 1861.

The species-identity of the pale-yellow tailed *P. Merope*, auct., and the tailless sombre-tinted *P. Cenea*, *P. Trophonius*, *P. Hippocoon*, and sundry unnamed varieties besides,—indicated by me, in 1868, as in the highest degree probable,*—was proved by Mr. J. P. Mansel Weale in 1873;† and his interesting paper describing the habits of the butterfly, and giving details of his rearing all the four forms from the ova, was published by the Society in 1874, together with a memoir of my own on the whole case.

Hitherto, however, although several observers had noted the tailed male in pursuit of the tailless female, so dusky and so unlike himself, there has been no record of the actual pairing of the sexes. This lacking evidence has now been supplied by Colonel Bowker, who has forwarded to me the male and female specimens which I exhibit, with the intelligence that he captured them *paired* in the park at D'Urban, Port Natal, on the 22nd February last.

It will be noted that these specimens are respectively of the forms most prevalent in Natal, *viz.*, the male

* Trans. Linn. Soc., vol. xxvi., pp. 506—511 (1869).

† Trans. Ent. Soc., 1874, pp. 131—136.

presenting the broad, black, hind-marginal border (irregularly dentate interiorly) of the fore wings and the continuous black discal bar of the hind wings, and the female having the spots of the fore wings white (except the largest one, which is faintly tinged with yellow).

Colonel Bowker writes that, on the day mentioned, this remarkable *Papilio* was very numerous in the park at D'Urban, and that he saw all the three marked forms of the female, as well as some intermediate variations. He observes:—"I watched them for some little time, and at length saw a pair *in copulâ* rise out of the weeds and fly slowly along, settling every now and then at short distances. I observed this couple very narrowly, and noticed that the male (*Merope*) settled uppermost, and in flight carried the female (*Cenea*), the latter keeping her wings closed. Though I witnessed several other cases of very serious flirtation between the sexes, I had to be satisfied with this single instance of a clear and unquestionable match; and it was really with much satisfaction that I put my net over the pair."

In a subsequent letter, dated March 10th, Colonel Bowker says:—"Both sexes of *P. Cenea* are common about D'Urban now, and I have been watching their habits. The female settles in some quiet secluded hollow among the weeds and undergrowth, and will remain there for hours; the male meanwhile taking long circles on the wing (sometimes extending to 100 yards from the spot), but always returning, and, in passing, making two or three dips with half-closed wings towards the female, whom he sometimes even touches. On the approach of the male in this manner the female opens her wings and keeps up a fluttering motion, until the male is off for another round, and afterwards returns to renew the acquaintance. I noticed that the same male with a broken wing returned many times to the female I was watching."

These observations quite agree with those published by Mr. Weale in the paper above mentioned, and also with what I have myself noticed in various parts of South Africa; but only on one occasion was I favoured with a view of the male in actual pursuit of a female, while Mr. Weale mentions that he had witnessed this several times, and once saw no fewer than four males busily courting the same female.