

- B. Secondary wings with conspicuous orange or fulvous-buff margin; secondary sexual organs of the male with the harpagones bearing a distinct posteriorly dentate lobe on the middle of the dorsal edge.

## 6. *Caligo atreus*.

*Morpho atreus*, Kollar, Denkschr. Ak. Wien, Math. Cl. i. p. 356, t. 44. ff. 1, 2<sup>1</sup>.

*Caligo ajax*, Doubl. & Hew. Gen. Diurn. Lep. p. 342, t. 56. f. 2<sup>2</sup>.

*Pavonia ajax*, Bates, P. Z. S. 1863, p. 248<sup>3</sup>; Boisd. Lép. Guat. p. 57<sup>4</sup>.

Alis brunneo-fuscis, anticis fascia albida a costa per cellulæ finem ad angulum analem eunte, et in hac regione purpureo suffusis; posticis fascia lata in linea eadem aurantiaca, angulum apicalem ipsum haud occupante; subtus brunneis, anticarum cellula nigro distincte figurata, posticarum parte basali nigro irrorata, fascia ultra cellulam anticarum albicante, posticis litura lata sicut supra fulva, lineis obscuris in medio divisa; ocellis ut solet in hoc genere.

♀ mari similis, sed major.

*Hab.* NICARAGUA<sup>4</sup>, Chontales (*Belt*); PANAMA, Volcan de Chiriqui, 2–3000 feet (*Champion*, *Arcé*), Lion-Hill station (*M<sup>r</sup> Leannan*<sup>3</sup>).—COLOMBIA<sup>1</sup>; W. ECUADOR<sup>2</sup>; VENEZUELA<sup>2</sup>.

This magnificent species was first described by Kollar from specimens obtained by Sulkowski in Colombia<sup>1</sup>; and a figure of a female accompanies his paper. Our Colombian specimens are all males, and were obtained by the late T. K. Salmon at Frontino, in the State of Antioquia. These do not materially differ from Kollar's figure, except that the orange band of the secondaries is in some cases narrower, with a tendency to break up into spots, and in some paler in colour. The species also occurs in Venezuela<sup>2</sup>, specimens from which country were named *C. ajax* by Doubleday, and whence we also have examples. These differ slightly from the Colombian ones in having the orange band of the secondaries broad and deeply coloured, and the white band of the primaries rather more distinct. These differences, however, are hardly specific. As regards the species in Central America, our specimens from the Panama railway agree rather with those from Antioquia, whilst those from Chiriqui and Nicaragua are just like the Venezuelan insect. As yet no specimens have reached us from Costa Rica; but it is certainly to be found in the hot low-lying forests of that country. Nicaragua seems to be the extreme limit of its range in this direction. In Guatemala and Southern Mexico *C. uranus* entirely takes the place of *C. atreus*, a species closely allied to it no doubt, but with unmistakable specific characters.

Another species allied to *C. atreus* has been described by Mr. Druce as *C. dentina*\*, and said to be from South Peru. This insect has hardly any white on the primaries; and the orange band of the secondaries is creamy white. It is a local form, perhaps not really separable from *C. atreus*. The locality given for it can hardly be correct; and we believe it should be looked for in the forest-region of Western Ecuador, whence Mr. Edward Whymper has recently brought home a specimen, which we have had an opportunity of examining.

\* Trans. Ent. Soc. 1874, p. 155.