

judging from the number of specimens that have been sent from those places. It is along its southern border, in the State of Panama, that varieties occur, some specimens having the spots of the primaries white, some yellow and white. One of our Guatemala examples has indications of a transverse band on the secondaries.

This is a forest-loving species, flying under the shade of the largest trees, not far from the ground.

### 8. *Heliconius octavia*. (Tab. XVII. figg. 9, 10.)

*Heliconius octavia*, Bates, Ent. Monthl. Mag. iii. p. 86<sup>1</sup>.

Alis anticis productis, costa arcuata margine externo paulo incurvo, nigris, regione venæ medianæ ferrugineo-fulva, fasciis duabus maculosis flavis, una a costæ medio ad marginem externum, altera transversa apud apicem, et punctis quinque submarginalibus flavis; posticis ferrugineo-fulvis, margine nigro maculis submarginalibus flavis notato. Subtus ut supra, sed alis obscurioribus et colore fulvo rufo-brunneo, posticis area interna lilacino tincta et plaga magna costali notatis, antennis nigris.

♀ mari similis, sed maculis anticarum fulvis nec flavis, colore ferrugineo alarum multo magis fulvo, stria fulva apud venam medianam ad angulum analem extensa et antennis plerumque flavis distinguenda.

*Hab.* GUATEMALA, Dueñas (*F. D. G. & O. S.*<sup>1</sup>), Panán, Las Mercedes, San Isidro, Cerro Zunil, Volcan de Atitlan, Mirandilla (*Champion*).

This species and *H. formosus* belong to a small section of the genus *Heliconius*, the members of which have each a species of *Tithorea* with a similar pattern of coloration. Thus *H. octavia* has a close colour resemblance to *T. duenna*.

*H. octavia* is a rare species in Guatemala, being confined, so far as we know, to the forests of the mountains sloping towards the Pacific Ocean. It was here that we first met with it, on the road from Dueñas to the coast, between the volcanos of Agua and Fuego, at an altitude of about 4000 feet. It is also found at a much lower level, as Mr. Champion, to whom we are indebted for a fine series of specimens, took it at various places in the Pacific coast region of Guatemala, as low as 1500 feet above the sea. To Mr. Champion we owe the discovery of the female of this butterfly, of which he has sent us several specimens. These differ from the males, as pointed out above, an unusual circumstance in this genus, the sexes in which are nearly alike in their coloration.

### 9. *Heliconius formosus*. (Tab. XVII. figg. 7, 8.)

*Heliconius formosus*, Bates, Ent. Monthl. Mag. iii. p. 87<sup>1</sup>; Butl. & Druce, P. Z. S. 1874, p. 351<sup>2</sup>.

*Heliconius hecalesia*, Bates, P. Z. S. 1863, p. 247<sup>3</sup> (nec Hew.).

*H. octaviæ* similis et eadem figura, sed supra anticis fere omnino nigris, posticis colore marginis nigro ad apicem concentrato, colore lilacino areæ discoidalis absente, distinguendus.

*Hab.* NICARAGUA, Chontales (*Belt*); COSTA RICA (*Van Patten*<sup>2</sup>); PANAMA, Volcan de Chiriqui, 2000 to 3000 feet (*Champion, Arcé*), Veraguas (*Arcé*) Lion-Hill station (*M<sup>c</sup>Leannan*<sup>1 3</sup>).

This species takes the place of the Guatemalan *H. octavia* in the southern section of