7. Catagramma pacifica. (Tab. XXV. figg. 15, 16.)

Catagramma pacifica, Bates, Ent. Monthl. Mag. iii. p. 1351; Butl. & Druce, P.Z.S. 1874, p. 3432.

Catagramma bugaba, Staud. Verh. k. k. zool.-bot. Ges. Wien, xxv. p. 1033.

C. deninæ et C. tolimæ similis, sed subtus macula posticarum fulva ad costam absente primo visu distinguenda.

Hab. Guatemala, Pacific slopes (F. D. G. & O. S.¹), Rio Naranjo (Champion); Costa Rica (Van Patten²); Panama, Volcan de Chiriqui (Ribbe³, Arcé, Champion), Bugaba (Arcé, Champion); Calobre (Arcé).

This insect is found only on the Pacific side in Guatemala, whence the specimens first described by Mr. Bates were derived; it is, however, much more common in the neighbourhood of Chiriqui, where all collectors who have visited that region have met with it in abundance. Specimens from this latter locality were described by Dr. Staudinger as C. bugaba; but there can be no doubt as to the identity of the two insects. C. pacifica can be readily distinguished from C. denina and C. tolima by the absence of the quadrate reddish-orange spot near to the base of the costa of the secondaries beneath.

b. Primaries red at the base either above or beneath.

8. Catagramma titania. (Tab. XXV. figg. 12 &, 13, 14 \, 2.)

Catagramma titania, Salv. Ann. & Mag. N. H. ser. 4, iv. p. 1771; Butl. & Druce, P. Z. S. 1874, p. 3432.

Alis nigris, cyaneo suffusis, anticis dimido basali coccineo, fascia indistincta subapicali rufa; subtus anticis fere ut supra fascia subapicali flava et maculis apicalibus cyaneis notatis, posticis punctis duplicibus cyaneis flavo indistincte circumcinctis, fasciis duabus ad basin et altera submarginali ejusdem coloris, inter has fascia cyanea parallela.

Hab. Mexico, Jalapa (Deppe); Guatemala, central valleys, Polochic valley, Pacific slope (F. D. G. & O. S.), Choctum (Hague), Tocoy (Champion); Nicaragua, Chontales (Janson); Costa Rica (Van Patten); Panama, Veraguas (Arcé).

A common species throughout Central America, and especially so in Guatemala, where it occurs in the lowlands bordering the two oceans. Its nearest ally is *C. maimuna*, which is found in Ecuador and the Upper Amazons; but the red of the primaries in the northern species is more restricted, the dark parts of both wings are glossed with blue, the anal angle of the secondaries is more produced, the patch of blue more widely diffused, and on the underside the yellow lines are constantly narrower.

As a rule, this species is fairly constant in its markings; but we have a male specimen from the Pacific side of Guatemala which is altogether devoid of the blue tint of the upper surface.