

### 5. *Volucella avida*.

*Volucella avida*, Osten Sacken, Western Diptera, in Bull. U.S. Geol. & Geogr. Surv. iii. p. 333<sup>1</sup>; Willist. Synopsis N.-Am. Syrphidæ, p. 139, t. 6. figg. 12, 12 b<sup>2</sup>.

*Hab.* UNITED STATES, California<sup>1 2</sup>.—MEXICO, Jaral in Guanajuato (*Schumann*).

A single female specimen from Jaral presents a number of minor variations from the descriptions. The cheeks are not wholly black; there are two oval, rather remote, spots in front of the scutellum. I see no black hairs on the margin of the scutellum; the median stripe of the second abdominal segment is not expanded anteriorly; and the basal joints of the tarsi are deep red.

### 6. *Volucella picta*.

*Volucella picta*, Wiedem. Aussereur. zweifl. Ins. ii. p. 201<sup>1</sup>; Rondani, Studi Ent. p. 65<sup>2</sup>; Schiner, Reise der Novara, Diptera, p. 358<sup>3</sup>; Willist. Trans. Am. Ent. Soc. xv. p. 275<sup>4</sup>.

*Volucella pulchripes*, Bigot, Ann. Soc. Ent. Fr. 1875, p. 480<sup>5</sup>.

*Hab.* MEXICO<sup>5</sup>, Omilteme 8000 feet, Dos Arroyos 1000 feet, Venta de Zopilote 2800 feet, and Tierra Colorada 2000 feet, all in Guerrero (*H. H. Smith*), Orizaba (*H. H. Smith* and *F. D. Godman*), Temax in Northern Yucatan (*Gaumer*).—SOUTH AMERICA, Brazil<sup>1 2 3 4</sup>.—WEST INDIES, Cuba.

Twenty specimens, which I confess myself unable to refer positively to this species, though I have compared them with examples from Brazil. As mentioned by me in the paper referred to above<sup>4</sup>, there is great variation in the markings. If all these Mexican representatives are referable to *V. picta*, as I believe they are, then it would seem very probable that the name *V. pusilla*, Macq., is synonymous. In structure the specimens are all quite alike, and there is no noteworthy variation in the markings of the wings. I group the principal varieties as follows:—

- (a) *Male*. Cheeks, median facial stripe, and frontal triangle deep black. Thorax wholly deep blue-black, save a small spot below the humeri and another in front of the scutellum; usually, also, a small vittula above the base of the wings. Scutellum reddish-yellow, without black pile. Abdomen black, with obscure reddish spots on the sides of the second and third segments. Legs deep black, the knees narrowly yellowish, the base of all the tarsi reddish-yellow, the base of the hind femora narrowly reddish. Humeri often yellowish.

This is evidently the same as *V. pulchripes*, Bigot.

- (b) *Male*. Like *a*, but the facial stripe brown, the scutellum with black pile, the humeri and a vittula above the wings yellow.
- (c) *Male*. Face and frontal triangle light yellow; sides of the mesonotum yellow, enclosing a black spot posteriorly; scutellum light yellow, with dark red pile; a large yellow spot on the mesopleuræ; two yellow spots in front of the scutellum; base of the abdomen light yellow; a large yellow spot on the sides of the second and the third segments.

This variety agrees quite with some of the specimens from Brazil, and seems to be the true *V. picta*.