

## Article VIII.—SYNOPSIS OF THE SPECIES OF MELITTIA OF AMERICA, NORTH OF MEXICO, WITH DESCRIPTION OF A NEW SPECIES.

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All the species of *Melittia* mentioned in the following paper are in the collection of the Museum, including the types of *M. gloriosa* (female), *M. snowii* (male), and *M. magnifica* (female).

The latter is by far the most brilliant species of the genus, and it seems strange that an insect so well marked should not have been described before.

*Snowii* is represented in the collection by a single male, and more material is very much needed to give a perfect description of the species. Of *M. grandis* and *M. gloriosa* we possess a pair of each species, and more specimens are also wanted of these species. *M. satyriniformis* we have in numbers from New York, and one example from Buenos Ayres, S. A.

### *Melittia* Hübner.

Head large, tongue rather long; antennæ dilated before the tip, with fascicles of cilia in the male, simple in the female; palpi erect, second joint slightly hairy. Fore wing as in *Sciapteron* in shape and venation. Hind wing with vein 3 given off before the end of the cell; vein 6 present. Hind tibia and tarsus clothed with thick long hair. Body robust; abdomen tapering; anal tuft slight.

#### *Synopsis of Species.*

SMALL SPECIES (24–34 mm.):

Fore wings metallic green.

Abdomen red, with row of black spots.....*satyriniformis*.

Fore wings light gray brown.

Abdomen brown along the back, pale orange along the sides..*snowii*.

LARGE SPECIES (38–45 mm.):

Hind wings orange in female.

Abdomen with two segments yellow above, white beneath, *gloriosa*.

Abdomen metallic steel blue.

Fore wings steel blue and orange.....*magnifica*.

Hind wings transparent in both sexes.

Abdomen brown above, pale orange beneath.....*grandis*.

### *Melittia satyriniformis* Hübner.

*Melittia satyriniformis* HÜBNER, Zuträge Exot. Schmett. Vol. III, 1825, p. 176.

*Egeria cucurbitæ* HARRIS, New England Farmer, Vol. VIII, 1828, p. 33.

*Trochilium ceto* WESTWOOD, Orient. Cab. Ent. 1848, pl. 30, fig. 6.

*Melittia amana* HY. EDWARDS, Papilio, Vol. II, 1882, p. 53.

Head metallic green on top; face white; palpi pale orange, whitish at base; antennæ green black. Thorax metallic olive green; sometimes green brown. Legs orange; tarsi black, banded with white. Hind legs clothed with long orange red hairs outside and with long black hairs inside. Abdomen above orange red, with a row of small black spots along the back; hind edges of segments very narrowly banded with metallic green; basal segment green black above and below. Underside orange. Fore wings dark metallic green, with the fringes brownish black; under similar to the above. Hind wings transparent in both male and female, opalescent in certain light; veins black, fringes brown.

Expanse, 24-34 mm.

*Habitat*: Canada, United States, Central and South America.

### *Melittia snowii* Hy. Edwards.

*Melittia snowii* HY. EDWARDS, Papilio, Vol. II, 1882, p. 53.

Head and thorax gray brown; palpi whitish. Abdomen pale orange along the sides, light brown along the back, and pale grayish brown beneath. Fore wings pale gray brown without any metallic lustre. Hind wings transparent, fringes gray brown. Anterior pairs of legs whitish, mixed with light brown hairs; anterior coxæ white. Hind legs whitish outside; tibiæ orange inside; tarsi black inside.

Expanse, 24 mm.

*Habitat*: Kansas (Douglass Co., 9000 feet).

Allied to *M. cucurbitæ*. The fore wings are pale gray brown without any metallic lustre. The species was described from two males, and these are, as far as we are aware, the only specimens known to exist in collections.

### *Melittia gloriosa* Hy. Edwards.

*Melittia gloriosa* HY. EDWARDS, Bull. Brooklyn Ent. Soc. Vol. III, 1880, p. 71.

Head grayish brown on top; face white; palpi white outside; yellowish above and inside. Thorax gray brown or olivaceous, edged with orange posteriorly. Antennæ strongly biciliate, brownish, orange towards the tip. Anterior pair of legs whitish, tibiæ black; posterior legs with long orange hairs inside; black outside, with a straw yellow streak at base of tibiæ.

Abdomen, with top of the first, second, and fourth segments, gray brown; third and fifth segments yellow; sides orange; last two segments gray brown with a decided metallic, light blue reflection. Underside white. Fore wings gray brown or olive green, with brown black fringes edged with light orange; underside bright orange, costal edge yellow, fringes same as above. Hind wings of female bright orange above and below, fringes brown black, orange

along inner margin. Hind wings of male transparent, with veins and inner margin orange.

Expanse, male, 40-45 mm.; female, 40-58 mm.

*Habitat* : Arizona and Southern California.

### ***Melittia grandis* Strecker.**

*Trochilium grande* STRECKER, Can. Ent. Vol. XIII, 1881, p. 156.

*Melittia beckeri* DRUCE, Ann. and Mag. Nat. Hist. (6) Vol. IX, 1892, p. 276 ;

Biologia Cent.-Am. Vol. II, Het. 1896, p. 325, pl. lxxix, fig. 18.

Head and thorax olive gray brown ; palpi yellow. Legs yellow, tarsi ringed with black. Hind legs with long orange hairs inside, and black on top from about the middle of the tibiae to nearly the tip of the tarsi ; underside of hind legs white, spurs black. Abdomen brown along the back, sides orange, and underside pale orange. Fore wing green brown above, yellowish beneath, green brown at apex. Hind wings transparent in both sexes, veins marked with dirty orange ; fringes green brown, marginal line blackish.

Expanse, male, 38 mm.; female, 45 mm.

*Habitat* : Arizona, Texas, and Mexico.

Closely allied to *M. gloriosa*, but differs from this species in color of the abdomen, and by having the hind wings transparent in both sexes. The pectinations of the antennæ are also shorter than in *gloriosa*. The insect described by Mr. Druce as *M. beckeri* is without doubt the same as *grandis*. Both description and figure agree with the specimen of *grandis* before me.

### ***Melittia magnifica*, sp. nov.**

Head blue black ; palpi orange, with the extreme tip black. Thorax steel blue, tipped with orange on each side posteriorly. Antennæ blue black, ferruginous towards the tip beneath. Abdomen metallic steel blue black above and below. Two pairs of anterior legs steel blue black (hind pair wanting). Fore wings bright steel blue black, with the inner part broadly light orange. The light part covers more than half the width of the wings to a little beyond the middle, where it curves downward to a point touching the hind angle. Fringes light orange. Hind wings deep orange above and below. Fore wings beneath orange, outer fourth black ; fringes orange.

Expanse, 42 mm.

*Habitat* : Austin, Texas.

Described from one female, collected by Mr. Joseph Mattes. It is the most beautiful and brilliant species of the genus. The hind legs unfortunately are wanting, but these are probably entirely steel blue, or are mixed with orange.

